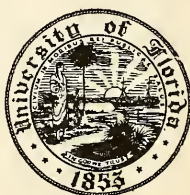


MAN

in the
Primitive
World


HOEBEL

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MAN

AN INTRODUCTION TO ANTHROPOLOGY



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in the Primitive World

by E. Adamson Hoebel

PROFESSOR OF ANTHROPOLOGY
UNIVERSITY OF MINNESOTA

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MAN IN THE PRIMITIVE WORLD

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TO FRAN AND BART

A partner on my earliest field trips was my wife, Frances Gore Hoebel. Later we were joined in our investigations by our son, Bart. Seventeen years ago, at the age of five, he eyed a group of Indian girls picnicking in Yosemite Park. "Dad, aren't those girls Indians?" he asked. "Well, why don't you talk to them? You might learn something." I offer this as evidence that he, like his mother, has nourished an active interest in anthropology that has been a sustaining stimulus through the years. At large and specifically, in their aid in the preparation of this volume as well as its predecessor, they have more than earned the right to have this book dedicated to them.

. . . the time must come—if we can survive
our own misuse of the physical sciences—
when the discoveries of cultural anthropology
will be recognized as the most significant
contributions of modern science.

Paul B. Sears, BIOLOGIST.

PRESIDENT OF THE AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE.

Preface

As an introduction to general anthropology this book endeavors to present the fundamentals of most aspects of the subject matter of anthropology. It also undertakes to state the more important problems of the science as they have been formulated in the present stage of anthropological knowledge.

It has been written primarily for the student, the worker in other sciences, and the lay reader who desires an orientation in the science of anthropology. The data have been selected with this goal in mind.

An attempt has thus been made to provide enough descriptive and factual materials to give substance to the work and reality to the patterns of conduct described herein. It is easily possible to gag the novice in anthropology with a surfeit of strange tribal names and minuscule customs to such a degree that digestion of the essential principles to be derived from the study of anthropology is made impossible. Therefore we have tried constantly for the best balance between overfeeding and underfeeding of facts.

Facts, however, are not enough. All phenomena have their meanings, but they never speak for themselves. Science is as much interpretation as it is observation, and a good introduction to anthropology must balance valid fact with sound interpretation.

Anthropology has traditionally concentrated its attention on prehistoric and primitive man. As the science of man it may, however, properly include man on any level of culture, primitive and civilized, within its scope; it may properly include man on any time plane, prehistoric, historic, and contemporary, within its purview. Anthropology must bring its conclusions to bear upon the problems of modern society; it must place its methods at the disposal of all other sciences.

Nevertheless, its great contribution to knowledge has been derived from its special quality as a comparative science. By means of anthropological study of societies unlike our own, we have been able to break through the mental crust formed of our own cake of custom. It is still

best to keep anthropology firmly rooted in the data of primitive society. In keeping with this conviction, this book is primarily a study of man in the primitive world.

It is nevertheless desirable and necessary to relate new facts to the preexisting knowledge of the student. Furthermore, in times like these, the ultimate justification for anthropology is the contribution it can make to the solution of the problems of man. Anthropology should be studied with reference to the modern world. Consequently, in addition to providing lucid descriptive fact we have striven continuously to create a fresh and comprehensive integration of fact and interpretation through the formulation of significant principles relative to the interests of the intelligent person in the modern world of science.

In the decade that has elapsed since the first appearance of this book, many new advances have been recorded in anthropology. Important discoveries made in the 1930s had been delayed in publication because of World War II. The war itself had given impetus to anthropological interests, and a new crop of ideas springing from the wave of cross-fertilization of the sciences in prior decades had become ready for fruition. New discoveries relating to the antiquity of man have now been made in Africa, Asia, and the Americas; the problem of Neandertal man is now viewed in a new light; Piltdown man has been banished from the scene. The prehistoric archaeology of Old World cultures has been given a much broader base. New World archaeology has undergone a veritable revolution of interests and approach. Carbon-14 dating and related techniques have been added to the resources of the prehistorian. The infusion of the genetic point of view has truly revolutionized much of physical anthropology. New ethnological field studies are legion. Exciting new prospects in linguistics and in the effects of language upon culture and human thought processes have been opened. The basic problems of cultural evolution are at long last receiving serious reexamination, and anthropologists have finally decided that their science may legitimately undertake the objective examination of the nature of values in human affairs. A specific event of great worth in separating fact from impression in anthropology has been the publication, in 1950, of Professor G. P. Murdock's *Social Structure*, which sets forth the results of his quantitative testing of a large number of anthropological hypotheses with data from the Yale Cross Cultural Survey.

All these vital new developments have made the revision of this book a responsibility not to be postponed. As a result, Part II, "Ancient Man and Prehistoric Culture," has been completely rewritten and expanded. The treatment of race has been thoroughly redone in terms of the genetic approach. Culture theory has been made more explicit. Greater reliance has been placed on recent reports on African societies. The treatment of

kinship has been sharpened, that of religion enlarged. A chapter on language and culture has been added. All other parts of the book have been carefully reworked to incorporate the most recent data as well as suggestions for improvement that have come from colleagues and students. For these I am particularly grateful. Brief summaries and basic selected readings on the subject have been added to each chapter as aids to the student. An expanded selection of illustrations has also been incorporated. For help in obtaining many of these I am indebted to Robert Gardner, Director of the Film Study Center at the Harvard University Peabody Museum of Archaeology and Ethnology.

Anyone who is familiar with the first edition of *Man in the Primitive World* will surely, I trust, find that this revision has entailed a good deal more than a change in format. I hope the reader will find the result to be a genuine improvement in all respects.

E. Adamson Hoebel



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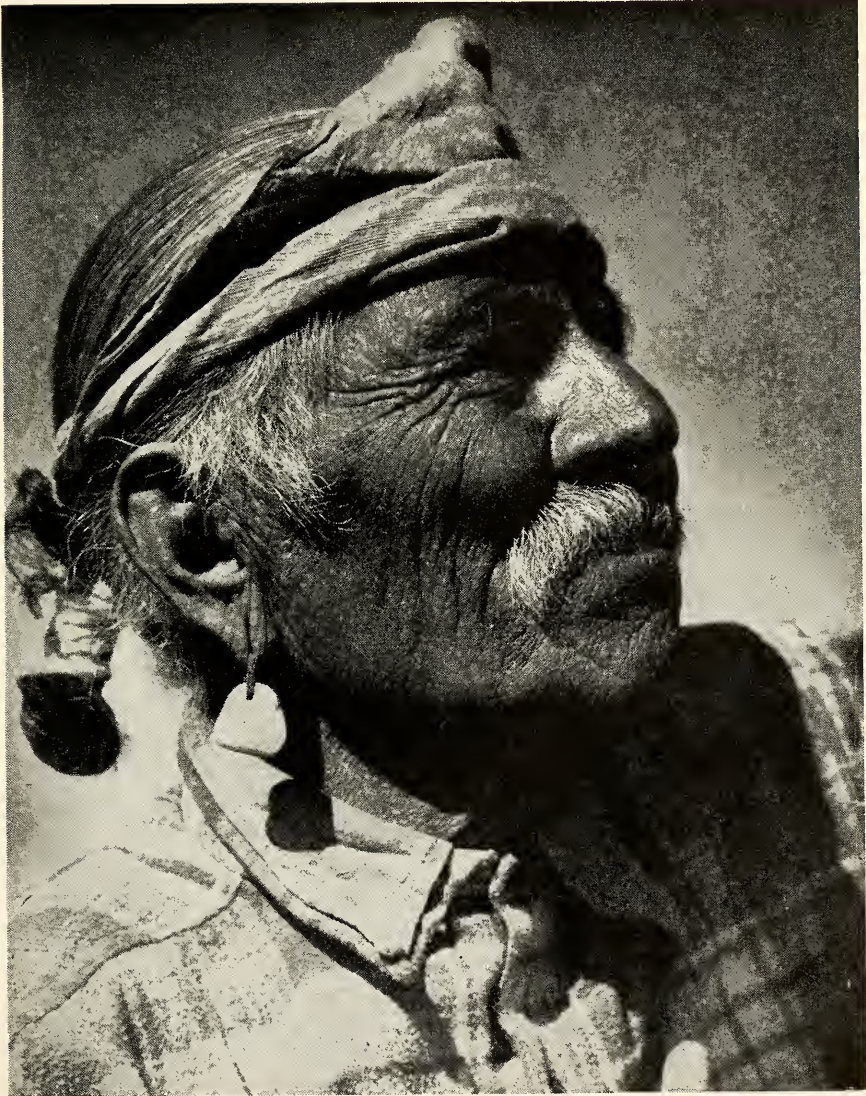
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Part One

INTRODUCTION





Navaho medicine man.

CHAPTER 1. Anthropology:

The Study of Man

AUGUSTINE observed that, "Man wonders over the restless sea, the flowing waters, the sight of the sky, and forgets that of all wonders man himself is the most wonderful." His wonder lies not in his fleetness of foot, nor in the strength of his arms, nor yet in his beauty, for many other creatures surpass him in all these. It lies in his ability to create: to think and bring forth new ways of living. Under the control of his facile mind he produces the tools of the craftsman. With imaginative variety he works out thousands of ways of organizing his life in multitudes of patterns to cope with the exigencies of nature, the demands of social grouping, the mysteries of the universe, and the strivings of his emotional self. Man, who is the greatest of all wonders, deserves study for his own sake, even though it were to bring no more reward than satisfaction to the probing curiosity of mind, which is in itself one of the wonders of man. Nevertheless, out of such study grows knowledge. And out of such knowledge grows power, the power to control nature and shape man's destiny. Thus anthropology, like any disciplined study of natural phenomena, leads not only to the satisfaction of intellectual curiosity; it inevitably becomes a tool in the hands of man. It is a practical undertaking through which to learn the nature of man, to the end that we may more effectively understand man's problems and how to solve them.

Man is a part of *nature*: the universe with all its phenomena. He is, therefore, a natural phenomenon, a biological genus within the animal kingdom. The study of man, called *anthropology* (Gr. *anthrōpos* man + *logia* study), when followed in accordance with the principles and methods of science, is consequently a *natural science*. Its almost unique quality, however, is that as a natural science it is simultaneously a *physical* and a *social science*.

In one of its branches anthropology is concerned with the physical

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structure and nature of man and also with his physiological processes. This is the branch known as *physical anthropology*. But anthropology is a good deal more than just the natural history of man's physical nature. It is the study of man—and of all his works. Anthropology is, therefore, also the science of culture. As such it is a major social science—and more. For in its concern with the arts it is also one of the humanities.

PHYSICAL ANTHROPOLOGY

All living forms of humanity today belong to a single biological genus and species—*Homo sapiens*. This was not so in prehistoric times when there were a number of different species, and even genera, of men and ape men struggling for survival. Today, within the sole surviving species, there are a great number of *breeds* and *varieties* of mankind popularly called *races*. It is the concern of physical anthropology to study the greatest possible number of well-selected samples of human beings to determine the general characteristics of the family as a whole and the special characteristics of the different genera, species, breeds, and varieties. Physical anthropology is, therefore, the study of the physical characteristics of the *hominids*.

The interests of physical anthropology are by no means limited to living races or man as he is today. One of its most fascinating problems is to roll back the curtains of time to see man as he once was, to reveal the biological paths along which man has developed to become what he is. It is through physical anthropology, relying on the record of fossil man, the protohominids, the anthropoids, the lesser primates, and the entire record of historical biology, that the factual account of the evolution of man is gradually unfolding.

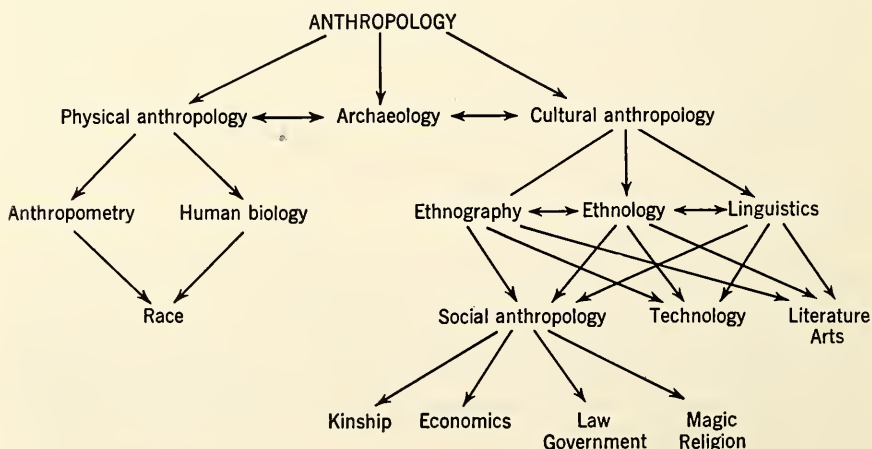


Fig. 1-1. Anthropology and the interrelations of its main subdivisions.

When dealing with prehistoric man the physical anthropologist must work almost entirely with skeletal material. Mummies are rare and are survivors from relatively recent times when they do occur. Russian anthropologists hopefully expect to discover some day a complete prehistoric Ice Age man, frozen and preserved by the same natural "Birds Eye" process that has yielded perfect specimens of the extinct woolly mammoth from the Siberian ice deposits. Lacking an adequate number of mummies and having no "Birds Eye men" as yet, the physical anthropologist working on prehistoric man is, in consequence, confined to skeletal materials, fossilized and unfossilized. This study of the bony structure of an animal form is called *osteology* (Gr. *osteon* bone + *logia* study); and it is the foundation of all physical anthropology, as the skeleton is the foundation of the body.

When dealing with living races, however, the physical anthropologist has the entire body at hand for comparative study. For static comparison he may treat the mere form of the body and its organs, including not only the skeleton but also muscular contour, eye color, skin color, hair form and color, and in addition, the internal organs. His aim is to characterize *human morphology* (Gr. *morphē* form + *logia* study). Here he is using the methods of comparative anatomy (Gr. *ana* up + *temnein* to cut). An anatomist is one who cuts up! For purposes of metric comparison the physical anthropologist has charted numerous fixed points upon the human body that can be used as bases for measurement. Such measurements may be treated statistically; ranges of distribution, averages, indices may be obtained and compared for different populations. This is the phase of physical anthropology known as *anthropometry*, the measurement of man.

The modern physical anthropologist is not satisfied with static data from the human body, however; nor is the modern anatomist, either. He wants to discover what is to be known about similarities and differences in the functioning (e.g., basal metabolism, pulse rate, growth rates) of the human body in different populations throughout the world. His method here is that of *comparative human physiology* (Gr. *physis* nature + *logia* study), which is the study of the dynamic working processes of living organisms. When the data of this type of investigation are treated by statistical method, we have the branch of physical anthropology known as *biometrics* (Gr. *bios* life + *metron* measure).

During the nineteenth century the physical anthropologist was content to measure and classify men according to their external physical characteristics. In the first third of the twentieth century he became interested in growth processes and physiological functioning. His science expanded. During the past two decades, and particularly since the war, new ideas and new methods have come to the field through the great and recent developments in blood typing and studies in human genetics. With these new

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tools physical anthropology is now able to dig much more successfully into the mechanisms of evolutionary differentiation among men.¹

ARCHAEOLOGY

Archaeology (Gr. *archaios* ancient + *logia* study) is often thought of as a science in its own right. It is more accurately to be seen, however, as a special area of activity within the science of anthropology. Its concern is the recovery of the remains of ancient man himself and the stripping of the mantle of the earth from the material evidences of his cultures of bygone days. Aside from its obvious effect of filling museum cases and storerooms, its real significance is found in its function of providing evi-

¹ Cf. S. L. Washburn, "The New Physical Anthropology" (*Transactions of the New York Academy of Sciences*, Series II, Vol. 13, 1951), pp. 298-304; H. H. Strandkov, "Genetics and the Origin and Evolution of Man" (*Cold Spring Harbor Symposia on Quantitative Biology*, Vol. 15, 1951), pp. 1-10; W. C. Boyd, "The Blood Groups and Types," in W. S. Laughlin (ed.), *The Physical Anthropology of the American Indian*, pp. 127-137. All are reprinted in E. A. Hoebel, J. D. Jennings, and E. R. Smith, *Readings in Anthropology*, pp. 59-87. For comprehensive introductions to general physical anthropology, see E. A. Hooton, *Up from the Ape*, Parts V, VI, and the Appendix, or M. F. Ashley-Montagu, *An Introduction to Physical Anthropology*.

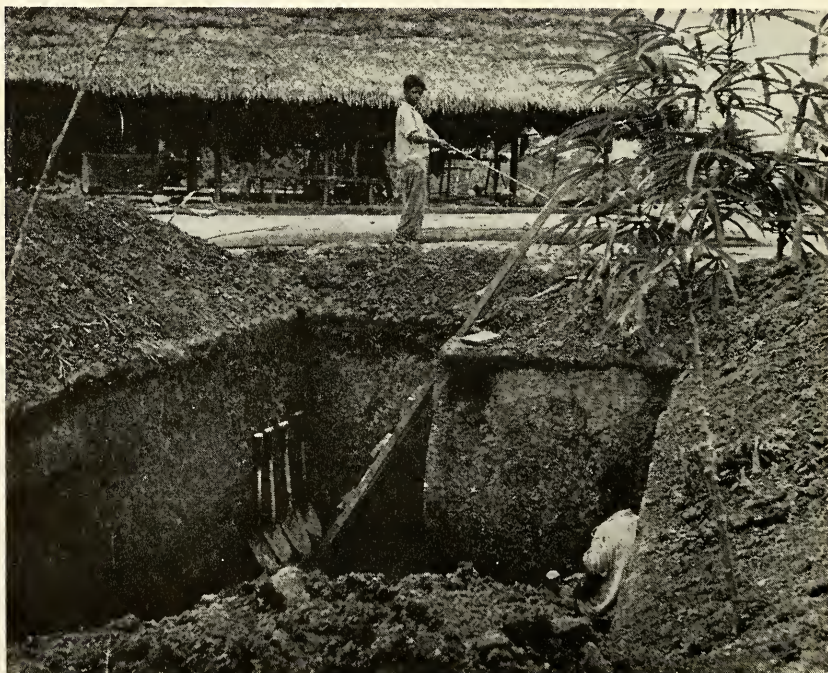


Fig. 1-2. An archaeological site in a Peruvian village. (*American Museum of Natural History*.)

dence from out of the past for scientific analysis by physical anthropologists and students of culture history. Since prehistoric men left no written records, the products of the archaeologist's painstaking scratching in the dirt are often all we have to go on. Archaeology has developed a highly exacting methodology with carefully controlled techniques for meticulous excavation and recording that require many hours of routine work in the field and laboratory, but it keeps its never-diminishing lure of the treasure hunt to infuse it with an aura of glamour.

CULTURAL ANTHROPOLOGY

To study culture is to study the social behavior of man and the products of such behavior. The phase of anthropology that devotes its attention to the customs and patterns of social behavior is called *cultural anthropology*, or sometimes, *culturology*, in contradistinction to physical anthropology.

The human being, as the most highly and most recently developed product of a billion and a half years of organic evolution, is the most plastic and adaptable of all living creatures. Man's unique quality is his ability to invent new forms of behavior that are not biologically predetermined by any hereditary set of the organism. Though the biological imperatives of hunger, sex, and bare-bones survival are limiting factors which man may never totally ignore, he is free to experiment with many different ways of meeting these needs. Beyond the basic biological requirements there stretches a practically unlimited area for further development of noninstinctive behavior.

Infants indulge in random behavior in the early stages of their development; but adult society bends its efforts at the earliest possible moment toward reducing this random behavior to ordered patterns. These behavior patterns define the characteristic and standard behavior for the members of any society. An Andaman Islander from the Bay of Bengal in the Indian Ocean weeps copiously when he greets a good friend whom he has not seen for a long time; a Frenchman kisses his comrade on both cheeks; we content ourselves with seizing his hand. The circumstance is the same in all instances, but the total situation is defined differently in terms of standard behavior among different peoples. This is the effect of *culture*.

The concept of culture is anthropology's greatest single contribution to modern thought. *Culture is the sum total of integrated learned behavior patterns which are characteristic of the members of a society and which are therefore not the result of biological inheritance.* It is not genetically predetermined. Culture is wholly the result of social invention. It is transmitted and maintained solely through communication and learning. Culture is noninstinctive.

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Every separate society has its distinctive culture. The consequent effect is that the characteristic behaviors of the members of every single society are in some respects significantly different from the characteristic behaviors of the members of all other societies. Change the characteristic behaviors of the members of a society and the culture changes with it, effecting a subsequent change in the behavior of the members of that society who follow after. Some general elements of culture are universal among all societies, however, and these make up "the common denominator of culture."²

Culture is manifest only in the behavior, beliefs, and attitudes of individuals; yet culture is superindividual and *superorganic* in that each person, as he is born and develops, comes under the sway of preexisting patterns of culture and is molded—or at least influenced—by them.

It has been customary to treat culture as *material* and *nonmaterial*, although in fact culture, which is behavior, is always nonmaterial. What has been called material culture is no more than the products of cultural behavior. Artifacts (tools, weapons, etc.), houses, monuments, and art objects are all material culture, so-called; but they are specifically products of ideas and techniques that were the behavior patterns that constitute culture.

This leads us to our second point with respect to material culture. Not only is every object of material culture the product of nonmaterial culture patterns, but every object has its specifically defined uses or functions, as determined by the culture complex in which it is embedded. For an example, Professor Malinowski effectively pointed out that the simple digging stick, or dibble, can also serve as a punting pole, a walking staff, or a rudimentary weapon. "It is the diversity of function not the identity of form that is relevant to the student of culture."³ The cultural anthropologist is less interested in a stick in a museum case than he is in the uses to which the stick is put in the culture from which it came and the attitudes of the users toward such a stick.

In the definition of culture, stated above, it was noted that culture is the sum total of *integrated* behavior patterns. This is because no culture is ever a random hodgepodge of ways of acting. There is always system in culture. All parts are integrally related in some degree to all others so that a considerable degree of compatibility is found among them. The whole is a unity. At the same time a greater or lesser amount of inconsistency is always observed to occur between some of the parts of any given culture. Integration, although always present, is never perfect.

The concept of culture has risen to central preeminence among the

² Cf. G. P. Murdock, "The Common Denominator of Culture," in Ralph Linton (ed.), *The Science of Man in the World Crisis*, pp. 123–142.

³ B. Malinowski, "Culture" (*Encyclopedia of the Social Sciences*, Vol. 4, 1931), p. 625.

working tools of anthropology, and it is spreading rapidly into the thinking of the other social sciences. In view of this fact, it should not be surprising that the bulk of this introduction to anthropology and the major activities of most anthropologists are devoted to the analysis and exemplification of culture.

SOCIAL ANTHROPOLOGY

Sometimes the concept of *social anthropology* is erroneously identified with that of cultural anthropology. From what has been said in the previous section, it should be clear that this is not strictly accurate. Social anthropology is actually a subsection of cultural anthropology, since its interest is in social behavior and the organization of social groups (social structure) and only very incidentally in the technological aspects of culture and the arts. It does not embrace all of culture.

Students often express curiosity as to the relation of *sociology* to anthropology. It is at this point that the relationship stands out most succinctly. Sociology and social anthropology are, in their broadest senses, one and the same. Both are the study of social interrelationships, i.e., the relations of men to men. They also have a close identity with *social psychology*, which is the special study concerned with social stimuli and the social responses of individual persons and groups. Although social anthropology, sociology, and social psychology are closely similar, if identified by their interests, nevertheless they exist as separate academic disciplines. The reasons for this are historical, as the anthropologist is fond of saying. Each field has had a different background, uses somewhat different methods of investigation, and has differing traditional attitudes and concepts. Anthropology tends more to work in terms of culture and whole societies. Sociology tends more to work in terms of aspects of complex Western society. Anthropology stems primarily from natural science and carries a greater measure of the natural science tradition. Still the methodological differences between these fields of study grow less with each passing year, as anthropology becomes more analytical and sociology more objective, so that today the measure of difference is one of convenience. The anthropologist concentrates chiefly on the societies of primitive people and the sociologist concentrates on our own contemporary civilization.

ETHNOLOGY AND ETHNOGRAPHY

Cultural anthropology has two traditional subdivisions that are given names of common use: *ethnology* (Gr. *ethnos* race, peoples + *logia* study) and *ethnography* (Gr. *ethnos* race, peoples + *graphein* to write). Neither of these names means exactly what a literal translation of its Greek roots

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would imply. They are not studies of races, which is the work of physical anthropology, but rather of the cultures of the world. Ethnography is strictly descriptive. It presumes merely to give noninterpretative, photographic pictures of a series of cultures. It is the collection of data only, the raw material for scientific analysis. Ethnology completes the process of extracting meaning from the data through classification, analysis, and the formulation of principles designed to interpret ethnographic facts in terms of broad anthropological theory and hypotheses as to the nature of human behavior and the evolution and functioning of culture. It sets problems for testing and devises methods for validating its theories and hypotheses. Ethnography uses techniques of observation. Ethnology adds methods of analysis for formulation and validation of scientific laws.

Ethnology, in turn, breaks down into a number of subdivisions in accordance with the degree of specialization. Thus there are specialists and specialized studies on primitive kinship organization and family life, on primitive economic activities, primitive law and government, on religion, material culture and technology, on language, the arts of painting, sculpture, music, dance, folklore and mythology—almost any major phase of human cultural manifestations that one might think of.

Linguistics. Languages are aspects of cultures, and the scientific study of languages is widely held to be a branch of cultural anthropology. In the United States, at least, all the larger departments of anthropology include linguistic analysis as a part of their programs for advanced training, although traditional language studies in archaic (Sanskrit, Greek, Latin, for example) and modern Indo-European languages have been part of university activities in areas outside anthropology for centuries. Anthropologists, once they had begun to base their studies on objective field work, were forced to learn many primitive languages from scratch with never a book of grammar to guide them. And this was a good thing. A universal system of phonetic recording had to be developed to write down what native informants were saying in a tongue for which there was no written language. This soon led to a realization that there were many ways of organizing speech in accordance with principles very different from those that govern the old, familiar Indo-European languages. Some anthropologists, fascinated by their new discoveries, began to concentrate their efforts on the recording and analysis of primitive languages, and linguistics as a specialized branch of anthropology developed in a way that is revolutionizing all language study.

ANTHROPOLOGY AS HISTORY AND SCIENCE

It was emphasized in the opening paragraphs of this introduction that anthropology is both a physical and a social science. Now we should call attention to the fact that it is also history. The historian may be a social

scientist when he undertakes to derive general laws of social change or actions by noting repeated regularities in particular events observed through time. Or, he may be a philosopher of history if he strives to explain what took place at particular times in history in terms of a priori schemes of interpretations. Or if the historian's interest is no more than "the scholarly pursuit of special knowledge of particular fact," he is neither social scientist nor philosopher; he is simply a historian. His emphasis is then on the uniqueness of the situation. "History never repeats itself." The time and the place, what happened then and there, stated exactly, accurately, and specifically is what is important for him. This is the concern of the historian as chronicler.

In science, as opposed to history, a fact is not itself of central interest. The object of science is to relate a multitude of facts to each other so as to make valid general propositions as to the nature of things. The scientist organizes his knowledge very differently from the historian and his methods of operation are basically different.

A few anthropologists like Bronislaw Malinowski and A. R. Radcliffe-Brown took the extreme position in the 1920s and 1930s that anthropology can be meaningful only as a science. They argued that history should be rigorously excluded from its activities. Anthropologists, they held, should concentrate on given societies which they can directly observe. By comparing the cultures of these societies, and by analyzing how the different parts of each culture work upon all other parts (in other words, *function*), anthropologists will have done their job when they have established scientific laws governing the ways societies are organized and function. What had happened in the past is irrelevant to such problems. Further, they argued, when working with primitive societies in periods for which there are no written records, there are no genuine facts worthy of scientific acceptance. The functionalist school of anthropology, founded by these two men, was therefore uncompromisingly antihistorical in its early history.

At the other extreme, some anthropologists have steadfastly held that anthropology is history or it is nothing. Everything takes place in time. Culture is a continuum, never the same from one day to the next. Every anthropological observation is a record of a historical fact.

A balanced view of the relation of anthropology to history would hold that it is perfectly possible to study cultures synchronistically, that is, within a simultaneous time span, arriving at valid scientific laws on the basis of time-limited data. Nevertheless, because all cultures exist and change through time, it is also scientifically important to study the processes of the growth and change of cultures. Culture and society, then, are not momentary things. They come out of the past, exist in the present, and continue into the future. What they are is the product of what they have been, worked upon by presently impinging conditions and influences.

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What they will be is the product of what they have been, worked upon by the conditions and influences that engage them today and in the future. Neither the present nor the future can be wholly understood without a knowledge of the past.

Modern anthropology, because it has its own origins more in natural science than in philosophy or traditional history, tends to insist that the writing of the chronicles of primitive societies is not enough for the realization of its goals. Anthropology in its fullest development is history plus science, or, if you prefer, the science of man and culture founded on the analysis of valid facts derived from present and past events.

Thus, in recapitulation, anthropology is seen as a special field of study that probes into the biological nature of man. This is represented in Figure 1-3 as the area below the horizontal middle of the figure. It is equally concerned with the cultural aspects of man's behavior. This is

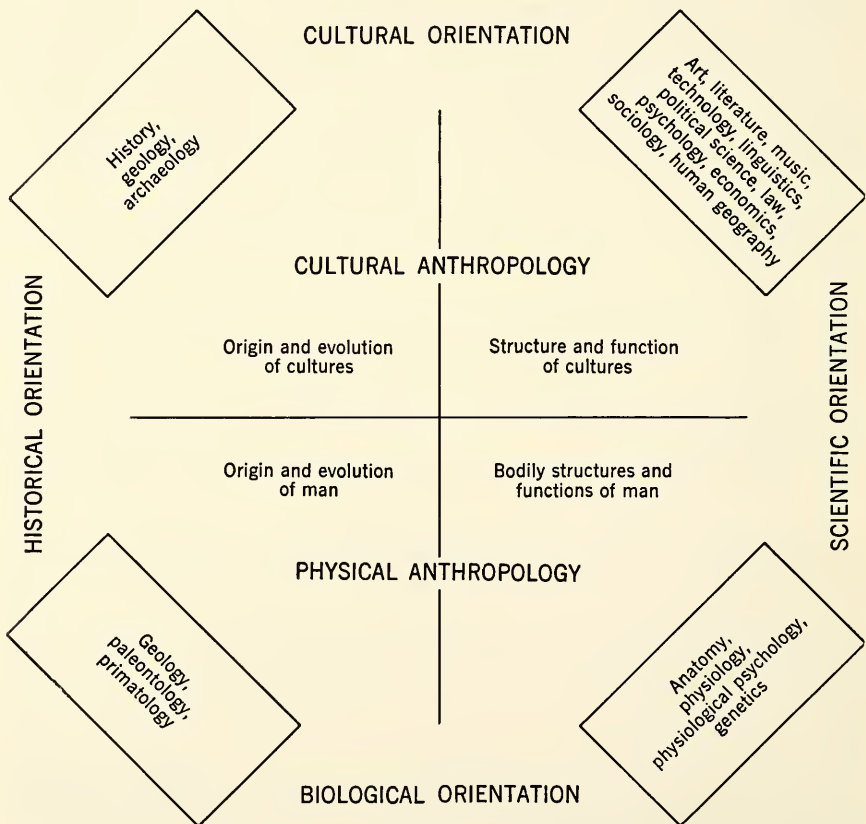


Fig. 1-3. Anthropology: Its subdivisions and related sciences in terms of scientific and historical orientation.

represented in the area above the horizontal mid-line. Both biological and cultural data may be treated with scientific or historical emphasis. The left half of the figure represents areas of anthropology with strong scientific emphasis. The right half represents areas of anthropology with strong historical emphasis. Outside the area that represents anthropology will be found the related sciences with which anthropology has its closest affinities.

The diversity of anthropology is manifold. For any one person to become a complete anthropologist, an expert in all its areas, is an impossibility. To be a good anthropologist requires considerable knowledge in many areas derived from broad learning.

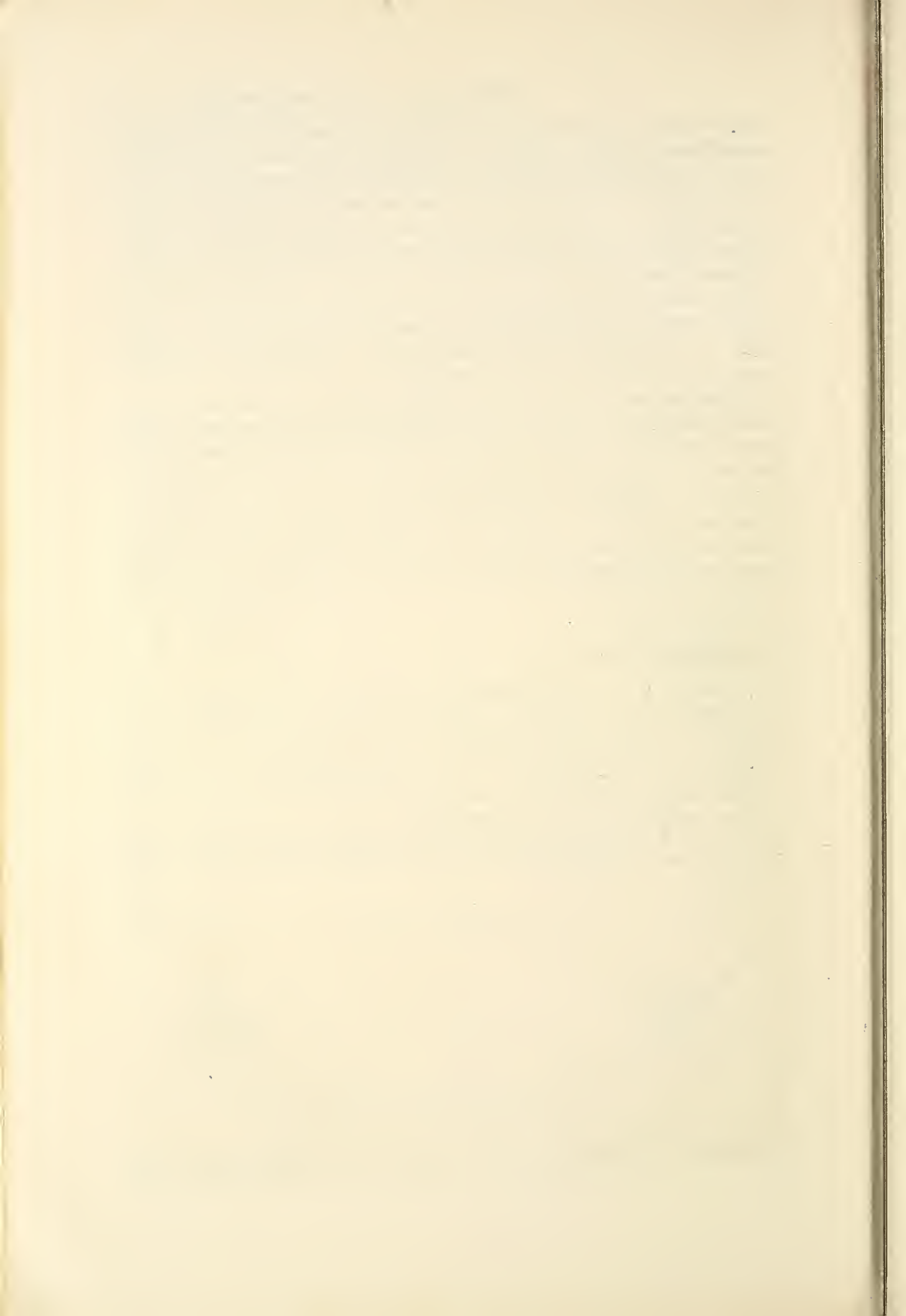
To become acquainted with anthropology brings many exciting rewards, one of which grows out of the way in which by its very nature it brings so much of physical science, biological science, social science, the humanities, and history into a meaningful unity through the person of man. It is by its very nature one of the most genuine integrators of knowledge. Whether one intends to become an anthropologist or not, it will be found to be one of the most interesting and useful studies for general learning and for the understanding of that most wonderful of all wonders—man.

SELECTED READINGS

Evans-Pritchard, E. E.: *Social Anthropology*. A series of six lectures delivered in 1950 to the radio audience of England on the nature and uses of anthropology.

Kluckhohn, C.: *Mirror for Man: The Relation of Anthropology to Modern Life*. Winner of the Whittlesey House contest for submission of manuscripts of books explaining science to the layman, *Mirror for Man* is a readable, erudite survey of what modern anthropology is, of what anthropologists do, and of what meaning their findings have for human beings today.

Penniman, T. K.: *One Hundred Years of Anthropology*. A historical résumé of the development of anthropology with emphasis on physical anthropology and prehistory.



Part Two

ANCIENT MAN AND
PREHISTORIC CULTURE



Prehistoric burial. Anasazi Culture. Alkali Ridge, Utah. (*Peabody Museum of American Archaeology and Ethnology, Harvard University.*)

CHAPTER 2. The Origins of Life and Man

TWO THOUSAND years ago the Latin poet Lucretius in his *De Rerum Natura* gave us the classical version of the evolution of human culture and the concept of a lowly beginning for man.

*When men first crept from out earth's womb, like worms,
Dumb speechless creatures, with scarce human forms,
With nails or doubled fists they used to fight
For acorns or for sleeping holes at night;
Clubs followed next; at last to arms they came,
Which growing practice taught them how to frame,
Till words and names were found, wherewith to mould
The sounds they uttered, and their thoughts unfold;
Thenceforth they left off fighting, and began
To build them cities, guarding man from man,
And set up laws as barriers against strife
That threatened person, property, or wife.
'Twas fear of wrong gave birth to right, you'll find,
If you but search the records of mankind.¹*

What the classical ancients dimly understood, we can now see in finer detail and clearer outline, for the last century of research in the biological and anthropological sciences has done much to dispel the misty fogs that have so long shrouded our past. No longer need we rely on myth and fancy to know and understand something of our origins.

¹ T. Lucretius, *Satires*, Book I, No. 3, lines 99-112.

THE PRINCIPLE OF EVOLUTION

Although the evolutionary aspect of our past was realized to a certain extent by the thinkers of the classical world, and of ancient China, too, it was the great intellectual achievement of the nineteenth century to put the facts of evolution to use in the analysis of natural and social phenomena. To Charles Darwin (1809–1882) and Alfred Wallace (1823–1913) goes the main credit for the first comprehensive formulations and systematic explanation of the biologic processes in terms of developmental sequences. Linnaeus (1707–1778) had brought order into the grouping of the biologic world by classifying living forms according to their similarities, thereby implying close relationship between similar forms. But Linnaeus's system was *synchronic*; i.e., it treated things on a single time plane. Darwin's approach was *diachronic*. It was concerned with development through time.

Darwin's great contribution was to demonstrate that life processes result in variation and the production of new forms; and that some of these new forms are better suited for survival under certain specific environmental conditions than are others. Those forms which possess traits more suited for prolonged existence in relation to a specific environment have superior survival value and will be more likely to perpetuate themselves. Those forms which develop traits unsuited for prolonged existence in relation to a specific environment have inferior survival value and are less likely to perpetuate themselves. Traits may be developed which are so inappropriate to living that they result in early death, or which so seriously impede reproduction, that they may be called *lethal traits*. This, in a nutshell, is the famous doctrine of *survival of the fittest*. The process is known as *natural selection*.

The three fundamental propositions upon which Darwinism rests are: (1) *radiant variation*—all life forms vary in all directions from the common, or normal, form and new variants are constantly being produced; (2) *adaptability*—some variants are more suited to continuance of the life of the organism in given environments than are others; (3) *natural selection*—those forms that are better adapted to existence will tend to survive and perpetuate themselves; the others will tend to be eliminated and become extinct.

The effect is gradual and continuous change leading to increasing diversity and complexity of living forms, and the process is known as *organic evolution*.

On the Origin of Species (1859) was one of the great intellectual contributions of the ages. In it Darwin showed with a massive accumulation of fact that in consequence of variation and natural selection new and more complex forms of life have emerged in a continuous sequence from

older and simpler forms of life. The process has been one of development from simple and homogeneous organisms to life forms of ever-increasing variety, complexity, and heterogeneity.

In Darwin's day the mechanics of genetics were as yet unknown (Mendel's studies were to remain unnoticed for half a century) and the factors that produced variation could not then be explained. This was a job for later workers.

The principle of evolution, however, is the only system of thinking that adequately and realistically accounts for the many known facts which now confront us as a result of decades of experience in biology and paleontology. It is not a tenuous theory of working hypotheses but a solid theory of empirically demonstrated postulates. "Evolution," as Howells writes, "is a fact, like digestion."²

The principle of evolution is the foundation stone of anthropology in its biological aspects (and to a lesser degree in its cultural aspects). It is the purpose of this and the succeeding three chapters to delineate the elemental facts of life's emergence and development as they relate to the origin of man.³

THE ORIGIN OF THE EARTH

The earth is itself a heavenly body, a planet, and a member of the solar system, revolving on an elliptical orbit around the sun and accompanied by its satellite, the moon. More than four billion years ago there was no earth and no solar system. There was a giant star instead. In the violent disruption of this virgin star the earth, Mercury, Venus, Mars, Saturn, Jupiter, Neptune, Uranus, and Pluto were born. The residual core of that giant star remained to constitute our sun. Mighty though it is, the sun is but a remnant of its former self.

The stupendous disruption of the great star probably occurred when the path of its orbit brought it in close proximity to a still greater star. An actual collision was not necessary to wreck the smaller of these two stars. It was sufficient that the sun came close enough to the larger mass of its passing competitor to be subjected to the tremendous power of its gravitational pull. This produced a tidal distortion that became greater and greater as the two bodies approached nearer and nearer to each other, until, as they at last sped past each other, the pull of the greater star exceeded that of ours to such a degree that it ripped great masses of sun stuff out into space. These were the *planetesimals*. Together, with the sun as a nucleus, they probably formed a stellar complex not unlike the

² W. W. Howells, *Mankind So Far*, p. 5.

³ Of the many books that treat the facts of evolution in detail, perhaps the best for general reference is G. G. Simpson, *The Meaning of Evolution*.

spiral nebulae that can be observed through a good telescope today. Each of the countless thousands of planetesimals moved on its own elliptical orbit about the vestige of the sun. A few of them were much larger than the others, and, in consequence, they exerted a gravitational attraction upon the smaller bodies that came within their range. Like giant vacuum cleaners the larger bodies swept along their orbits, gathering in the lesser planetesimals, rolling up their bulk like ever-increasing snowballs. The occasional meteors that come flaming through our atmosphere today are merely belated arrivals at our planet, which is the current product of the evolutionary growth of one of the larger original planetesimal nuclei.⁴

The earth probably had a thin atmosphere at first, which grew heavier as the earth increased in mass and gravitational power through the addition of more and more planetesimals. Water vapor condensed to form rain, which in turn ran down from the higher surfaces of the unevenly piled planetesimal drifts to form lakes and oceans. Increasing pressure on the interior of the earth's mass, together with heat liberated by the decomposition of radioactive substances, raised internal temperatures sufficiently to melt those parts of the heterogeneous mass which had the lowest melting points. Within the solid mass of the earth bubbles of molten rock developed, which gradually worked their way toward the surface until many of them broke through in fiery volcanic action. When the molten masses cooled, they had formed lava fields and the tough igneous rocks. All this time, rain was washing down the high spots into the ocean basins where the water sifted out the sediments so that they came to rest in sedimentary layers. These were later compressed into strata of sedimentary rocks, some of which were metamorphosed (changed) into crystalline rocks by later and more severe pressures.

From its very inception the atmosphere has been busy tearing down the elevated masses and drowning them in the seas. For various physical and chemical reasons the earth materials that go into the sea are heavier than those that remain on land; the result is that the rocks underlying the ocean floors have a greater specific gravity than do those of land areas. The distribution of weight about the earth's surface is not even, and it is subject to a constant gradual disturbance and readjustment of position. Usually the lighter land masses are forced upward as the ocean basins settle. Thus, the areas around the continents are lifted above the waters, and the process of their demolition (erosion) begins anew. The process of uplifting occurs unevenly around the earth's surface, however, and land areas can also sink beneath the seas.

Successive elevations and subsidences result in different layers of sedi-

⁴ This discussion is a simplified presentation of the famous Chamberlin-Moulton planetesimal hypothesis of the origin of the solar system. See T. C. Chamberlin, *The Origin of the Earth*.

mentary rocks, each distinguishable from the others. These layers are the pages of earth's history that the geologist reads. The layers formed earliest are at the bottom of the heap, and although not all the layers built up through time occur in any one place, by integrating the layers found in different parts of the world, geologists have succeeded in completing the total sequence.

From the disruption of the sun star to the relative completion of the nuclear core of the earth (when it had acquired the bulk of its planetesimals) to the formation of its first oceans is known as *cosmic time*, a period that may have lasted two billion years, but of this period there is no direct geological record. *Geologic time* began with the deposition of sedimentary rocks, the first of which were laid down some two and a half billion years ago. This span of time is divided by modern geologists into five eras, each named according to its most characteristic forms of life. Figure 2-1 presents in a simplified manner the sequence of eras and periods with their outstanding life forms.

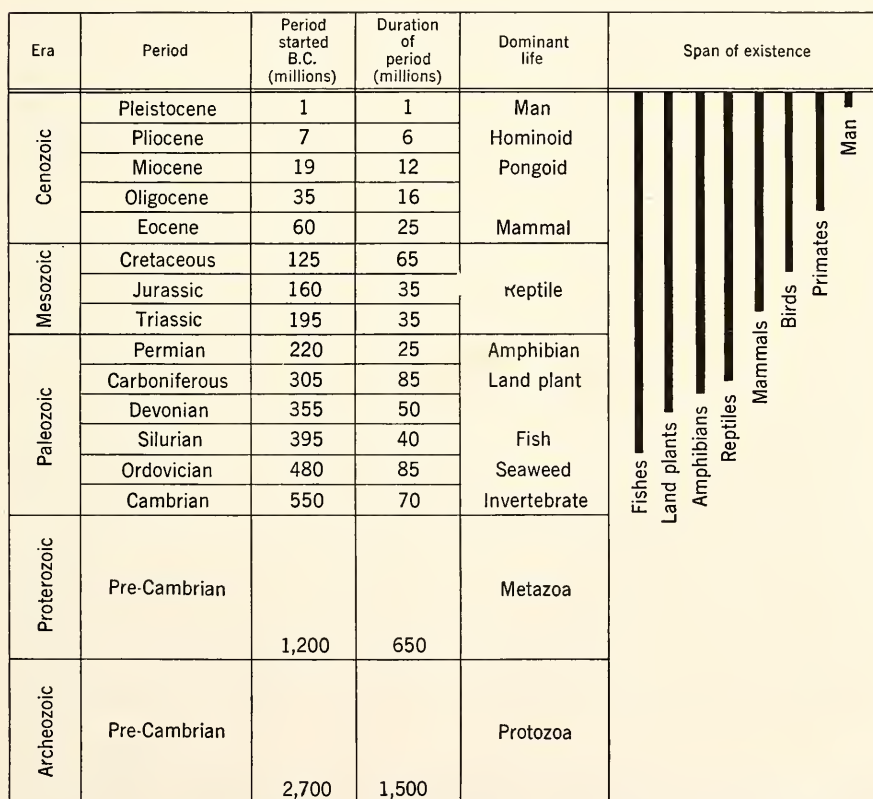


Fig. 2-1. The geologic ages and the forms of life.

THE ORIGIN OF LIFE

It is most probable that life made its first appearance upon this earth soon after the beginning of geologic time. This is indicated by the presence of carbon in Archeozoic sedimentary deposits of Ontario, Canada, a condition which the paleontologist Charles Schuchert declares "indicates unmistakably that life was already in existence."⁵ Yet just how life began or where this momentous and mysterious event occurred is still unknown, for protoplasm, which is the basis of all living matter, is such "an inconceivably complex physiochemical organization"⁶ that it has defied final scientific analysis up to the present. True, the chemical elements that go into protoplasm are known, but its molecular and atomic structure is so complex that the compounds that are built up from these elements within the protoplasm cannot be stated. The most we can say is that life first began when the several elements that make up protoplasm occurred initially in proper combination in suitable environmental conditions—whatever they may have been. These then combined to form a unique matter which is colloidal in form, which can maintain itself by borrowing energy and materials from its surrounding environment (a biologic process called *metabolism*), which can grow and increase its mass, which can reproduce itself and maintain continuity, which is marked by rhythmicity in its vital processes, which is irritable (responds to stimuli), and which is marked by adaptability (the capacity to adjust to environmental changes).⁷

Since the first successful formation of unicellular protoplasm (*protozoa*), life forms have progressively evolved into differential forms of increasing complexity. The long and intricate path of evolution has led upward through successive geological strata. Protozoa and metazoa prevailed during the Archeozoic and Proterozoic eras, respectively (more than two-thirds of geologic time). Shell-bearing marine animals and primitive fishes left their fossil marks in the rocks of the early Paleozoic; insects, amphibians, and primitive land plants first appeared in the middle of the same era, and early reptiles showed up in the later phases. The Paleozoic era endured for approximately one-sixth of geologic time. The Mesozoic era was the Age of Reptiles, the time during which cumbersome dinosaurs dragged their ungainly hulks about the landscape. In the last of the eras, the Cenozoic, in which we are still living today, the cereals, fruits, higher mammals, apes and monkeys, first emerged, to be followed later in the era by the forerunners of man and, at last, by man himself. The Cenozoic is

⁵ C. Schuchert, "The Earth's Changing Surface and Climate during Geologic Time," in *The Evolution of Earth and Man*, p. 65.

⁶ L. L. Woodruff, "The Origin of Life," in *The Evolution of Earth and Man*, p. 83.

⁷ H. H. Newman, "The Nature and Origin of Life," in *The Nature of the World and Man*, pp. 166-176.

the shortest of all the eras, for it has thus far consumed less than one-fiftieth of all geologic time. Each successive era, though notably shorter in duration than those preceding it, nevertheless brought forth more numerous life forms in ever-increasing complexity than those which had previously run their courses.

The evolution of life continues to this day, and there is every reason to believe that it will continue as long as life exists. The history of living matter has been one of continuous change and progressive development since life first came into being in the Archeozoic. Nor has anything occurred to indicate that the process has been arrested. Indeed, man has greatly hastened the evolutionary process among many life forms by turning it to his own ends through the skillful techniques of plant and animal husbandry. Many more new varieties of plants and animals have been deliberately brought into being by the efforts of man during the past hundred years than in any other equal span of time in all history or prehistory.

New forms come into being, and old ones sometimes disappear. If man has had a hand in bringing forth new life forms, he is also responsible for the disappearance of many others. The extinction of a variety or species is the mark of its failure in the struggle for existence. Many forms of life developed to fit a particular environmental complex (which included not only the physical environment but other life forms as well) only to fall by the wayside when critical periods of change in earth conditions so altered life conditions that they were no longer fit to survive. Farewell to the dodo, brontosaurus, stegosaurus, pteranodon, and archelon; life marches on!

EVIDENCES FOR THE EVOLUTIONARY ORIGIN OF MAN

If there had been no fossil evidence whatsoever, it still would be perfectly possible to establish with reasonable certainty that man is the highest product of evolutionary emergence, that he is so similar to the living apes and monkeys in such a multitude of specific traits that he must be closely related to them in point of origin, that he is a mammal and has a common ancestry with other mammals, and that he is a vertebrate animal having a common ancestry with other vertebrates.

The five major kinds of evidence that form the basis for these conclusions are: (1) comparative morphology, (2) vestigial remains, (3) embryological ontogeny (Gr. *ōn* pr. part. of *einai* to be + *genēs* from *gignesthai* to be born, produced), (4) comparative blood relationships, and (5) transitional fossils.

Comparative Morphology. By comparison and contrast of skeletons, musculature, and other tissues and organs of man and all other vertebrates, we know in great detail precisely in what respects man and other

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animals are alike and in what respects they differ. The general similarity between man and the higher vertebrates is so specific that beginning medical students can learn the elements of surgery destined for use on human beings by practice on dogs, cats, and monkeys, or any other vertebrate that is conveniently accessible.

Every bone that is present in the apes is also ordinarily present in man (except the thirteenth rib). The dissimilarities exist in the shapes of the various bones. The same holds generally true for the musculature and internal organs. Bones and tissues in man and ape are alike in number and usually in function; they differ slightly in form. In man these differences in form and function are associated primarily with the attainment of upright posture: greater stability and solidity of the hind limbs (legs), greater prehensibility of the fore limbs (arms), enlargement of the brain, reduction of the face and jaws, and differences in dentition. No zoologist, unhampered by anthropocentric or theological preconceptions, would have the slightest hesitancy in classifying man with the apes and monkeys as a primate on the basis of comparative morphology alone.

Vestigial Remains. Functional analysis of the organs of many living forms reveals a considerable number of structures whose presence is understandable only in the light of the emergence of new species by evolutionary modification from earlier biological forms. These are organs that have no, or only a limitedly, discernible function in the living creature, but which can be seen to have had a significant function in more primitive forms. An example would be the dewclaw on the hind portion of a dog's leg above the paw. This can be seen as the fifth claw, or big toe, in the foot of more primitive mammals. Where fossil evidence is available in quantity, as in the case of the horse, the progressive atrophy of four of the five original toes into a single hoof can be convincingly seen, as the horse became more and more specialized as a swift-running terrestrial animal through the ages. In the contemporary horse the four vestigial toes survive under the skin of the leg bones as minute bones that have no earthly use. They are vestiges of former times.

Because such vestiges serve no discernible useful purpose they are also called *dysteleologies* (Gr. *dys* bad + *telos* end, purpose + *logia* study; i.e., without good purpose).

The presence and distribution of body hair on man is an obvious vestige; it has long since become so slight and atrophied as to be without value; indeed, its superfluity is such as to give rise to a flourishing depilatory business in our culture. The same may be said of the vermiform appendix, which serves a definite digestive function in apes, monkeys, and other herbivorous animals, but not in man. The third molar, or wisdom tooth, in the reduced jaw of man is another organic superfluity. It is healthy and useful in the other primates, but there is hardly a place

for it in our dentition. Overcrowding causes frequent impaction; it is more subject to decay than the other teeth; and according to Keith's studies of the English population, a lucky fifth of the population of that country do not even develop the rudimentary third molar.⁸

The coccyx, formed of the last four caudal vertebrae at the bottom of the spine, is a hidden vestigial tail, which is folded under and does not show on most of us at birth. It is external in the human embryo during its second month of growth, and even today a few persons are born with the coccyx showing.

Numerous muscles occur in different parts of the body, which are not functional in man, although their homologues are functional in other primates.⁹ Most of us have acquaintances who can wiggle their ears, but although the rest of us have vestigial ear muscles, we possess them in such atrophied form that this entertaining simian capacity is beyond us.

All these vestigials are anatomical lags. Indeed, if one takes the pessimistic point of view enunciated by the physical anthropologist Hooton, it seems as if most of the human body is formed of anatomical lags, many of which, although they function (in contrast to the vestigial organs), do so with lamentable insufficiency. For alas, in standing on his hind legs man throws undue stresses and strains upon his bodily structure for which it was not originally constructed in the days when our mammalian ancestors ran on all fours. The convex arch of the spine of the quadruped is a fine supporting structure, but the S-curved columnar spine of man is apt to be too weak for its job; more than this, it throws too much weight on the wedge-shaped sacrum. The frequently lamentable result is sacroiliac displacement. To add to our woes, our visceral organs no longer rest in a neat underslung basket of ribs; instead, they drape down into a poorly supported abdomen. Result: rupture of the abdominal wall or the displacement of internal organs.

We also carry a crowded tangle of unnecessarily long (for our type of diet) intestines, a heritage from our herbivorous ancestors. Our overstrained hearts must work excessively hard to pump an adequate stream of blood to our enlarged brains, now in a position above the heart instead of on the same level with it, as among quadrupeds.

These are only a few of the inherited inadequacies of the human species that Hooton has called our "original biological sins."¹⁰

Sum up the many anatomical lags in the human body (which represent imperfect evolutionary adjustments to new demands put upon old struc-

⁸ A. Keith, *The Antiquity of Man*, Vol. 2, p. 401.

⁹ See E. A. Hooton, *Up from the Ape*, pp. 232-233, for a discussion of some of these muscles.

¹⁰ E. A. Hooton, "The Wages of Biological Sin" (*The Atlantic*, Vol. 164, 1939), pp. 435-445.

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tures), add to them the hundred or so vestigial organs (which represent old and now useless structures upon which no bodily demands are made), and you will agree with Wallis that man "is, indeed, a walking museum of antiquities."¹¹

Recapitulation in Embryonic Development. Each human being is launched upon his life cycle as the result of the fertilization of a female ovum by a male sperm. Through cell division and multiplication the ovum increases in size and complexity, passing through the simple multicellular stages of the *blastula* (a single-layered cellular mass) and the *gastrula* (a double-layered, cuplike cellular mass), into the advanced embryonic stage, through the fetal stage, which is reached in the second month, on to birth after nine months. The process of growth is not complete even then, of course, for a long period of postnatal development is required to produce the adult human being. The entire life history of the individual, from conception to full development and inevitable death, is termed *ontogeny*.

At various stages of embryonic development characters such as the notochord, gill arches, and gill grooves are present. They represent important features of certain early evolutionary forms that are not present in the fully developed human being. In broader terms, the human embryo passes through successive stages roughly similar to an undifferentiated cell mass, a coelenterate, a worm, and a generalized fish with the foundation of gill arches in its neck region; finally, it takes on mammalian qualities and is ultimately born a man-child; although even a proud parent frequently finds it difficult to agree that a newborn infant looks like a human being (Fig. 2-2).

Thus, it has long been held that the human embryo recapitulates the evolutionary history of the human race. This is known as the *recapitulation theory*. Provided one does not take the theory too literally or interpret it too narrowly, it is sound and useful. When we say that the human embryo is fishlike at a certain stage, we do not mean that it is identical with the comparable embryonic stage of a fish. Human ontogeny is always unique, and a human embryo can always be identified for what it is at whatever stage of growth it may be. Nevertheless, it seems to be established that in a generalized way "ontogeny repeats phylogeny," or "each individual climbs his family tree."

Blood Relationship of Man and the Primates. If the principle of recapitulation in embryological development is subject to some qualifications as evidence of man's relation to lower animal forms, the evidence to be found in experimental blood tests with man's relatives is not.

Since the epoch-making medical discoveries of Pasteur and Koch, the

¹¹ W. D. Wallis, *An Introduction to Cultural Anthropology*, p. 19.

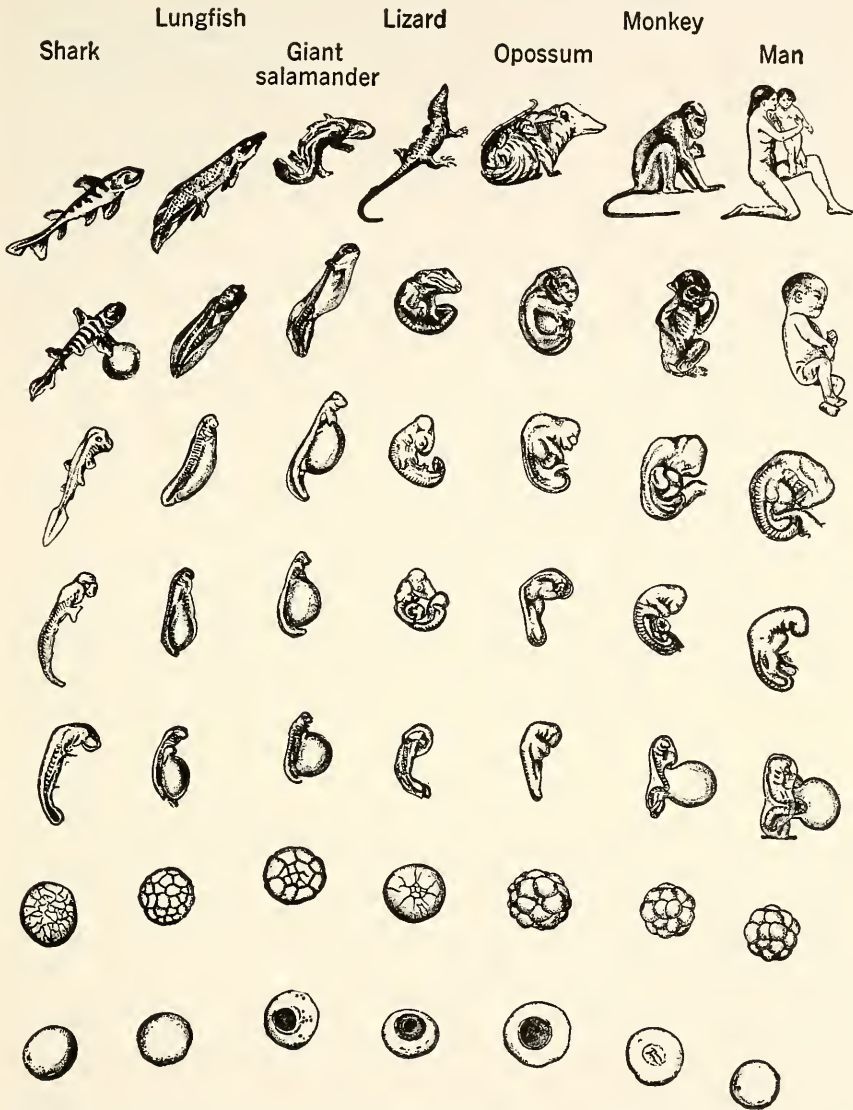


Fig. 2-2. Comparative stages in embryonic development. (*American Museum of Natural History.*)

marvelous antitoxin capabilities of animal organisms have become familiar to the millions of persons who have been vaccinated. Vaccines are serums produced by injecting the toxin, or disease virus, into an animal whose physiological system produces antibodies to destroy the toxin. Serum de-

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rived from the extracted blood of the medium animal contains the active antibodies, and this serum, properly introduced into the human blood system, will in the fortunate cases produce immunity to the disease for which the serum is a specific.

The principles underlying this process have suggested a series of highly significant blood-relationship tests. The blood of a dog, let us say, injected into a rabbit (any tractable animal will do) causes the rabbit's system to produce antibodies to counteract the alien (dog) blood. A serum produced from this rabbit's blood may be called *antidog serum*. When mixed with the blood of a dog it causes a white precipitate to form. The same reaction occurs, though with less intensity, when the antidog serum is mixed with the blood of a wolf, fox, or any other member of the canine family. The closer the relationship to the dog, the stronger the reaction. But the antidog serum produces no reaction when mixed with the blood of a cat, a hog, a monkey, a man, or any noncanine.

Anticat serum produces a like precipitation when mixed with cat, tiger, lion, or any other feline blood; but it does not precipitate when mixed with the blood of a nonmember of the feline family.

Similar results will occur for any animal family for which an antiserum can be produced. So it goes for man and the apes and the monkeys. Anti-human serum produces a cloud of white precipitate when mixed with human blood, a lighter cloud when mixed with the blood of an ape, and a still weaker cloud when mixed with the blood of the various monkeys. A slight reaction is even produced in mixing the antihuman serum with the blood of the lemur and tarsius, living representatives of the most primitive primate forms from which man, the anthropoids, and monkeys have developed during the last sixty million years. Blood will tell, and "the blood of the common ancestor still flows in man, the higher apes, and, in more diluted form, the Old and New World monkeys."¹²

Fossil Man. There is fascinating evidence offered by the recovered skeletons of fossil men and prehomínids. Their bones have been lifted out of the past to offer mute testimony of the antiquity of man and his early nature. They form a host of "missing links" that piece together to weave a pattern of evolutionary trails out of apedom into humanity. Each year, as new discoveries of fossil men are brought to light, the pattern becomes more complex but its certainty is made clearer. The fossils and the way they form the pattern of relationship to lower forms will require for exposition the whole of the next two chapters.

The multitude of identities indicated by comparative morphology, the presence of dysteleologies, embryonic growth, and blood relationship, are

¹² *Ibid.*, p. 13.

so significant that they cannot be passed off as simple coincidence. The purpose of science is to provide meaning to facts by seeking a significant relationship among them. And that explanation is most suitable which accounts for the greatest number of known facts with the fewest unverified assumptions. By these standards the principle of evolution measures up most effectively. For this reason it has won universal scientific acceptance in spite of the fact that it forced such a general revision of many of our earlier ideas.

Since the time of Darwin a small host of explorers in the earth, the paleontologists and archaeologists, have scoured many parts of the world for fossil remnants of earlier forms of life. What was inferred from observation of living forms has now been confirmed by the recovery of many specimens that show in hard rock what the successive steps in radiant evolution have actually been.

When Darwin published his second work *The Descent of Man* in 1871 only the Neandertal type of fossil man was known. Today fragments of several hundred fossil men are available for analysis, plus many forms of nonhuman primates. The record of fossil primates, including man, is still not as complete as is necessary for the answering of many of the questions about how man came to be what he is, but it is sufficiently full to show us the main outlines and some details. Discovery has followed discovery in the last three decades, and every year now brings forth important new finds.

SUMMARY

The accumulation of facts by biology in all its branches, by paleontology and geography, and by anthropology overwhelmingly demonstrates that the earth and all the living forms upon it have been undergoing persistent evolution. Life began something more than a billion years ago in the activation of protoplasm in unicellular form. The evolution of life has consisted in the continuous development of greater and greater complexities of cell aggregations or organisms. The process is the result of genetic variation and adaptation to specific environments through natural selection. Every living form is an outgrowth of an earlier type of organism. Human types, therefore, are more recent elaborations of subhuman, anthropoidal prototypes. The common biological heritage of man and lower animals is substantiated by similarities in anatomical structure and functions, by the presence of vestigial remains in man, by phylogenetic recapitulation in embryonic development, by comparative blood relationships, and by the succession of fossil forms of man.

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SELECTED READINGS

- Carter, G. S.: "The Theory of Evolution and the Evolution of Man," in A. L. Kroeber (ed.), *Anthropology Today*, pp. 327-341. A short and readily understandable summary of Darwinian evolution as applied to man in terms of modern genetic knowledge.
- Huxley, J. S.: *Evolution in Action*. A discussion of the dynamics of evolution by the distinguished biologist, grandson of Darwin's famous protagonist, T. E. Huxley.
- Newman, H.: "The Origin and Nature of Life" in *The Nature of the World and of Man* (rev. ed.), pp. 166-176.
- Simpson, G. G.: *The Meaning of Evolution*. The outstanding contemporary exposition and interpretation of organic evolution.

CHAPTER 3 Man's Place

among the Primates

MAN IS A member of the animal *kingdom*. Because of his spinal cord, he belongs to the *phylum* of chordates. His spinal column of bony segments puts him in the *subphylum* of vertebrates. His practice of nourishing the young on nutrient fluids excreted by the female gives him membership in the *class* of mammals. Because the unborn young are developed in the maternal womb, he qualifies for membership in the *subclass* of eutheria, within which he is identified as belonging to the *group* of placentals, since the fetus is nourished directly from the blood stream of the mother through the placental plate.

Among the placentals man ranks in the primate *order*, the pithecoïd *suborder*, and the catarrhine (Old World monkey) *infraorder*. His *family* is that of the hominoids (manlike), within which he belongs to the *subfamily* of hominids (human). Because man is man, his *genus* is *Homo*. Still, it is not enough just to be man, for there are men and men. All living forms of man belong to a single species which was bright enough to survive when other species went under. Therefore there are no other species of man to object when we call our *species sapiens*, wise. Within the species several *varieties* or *races*, such as the Caucasoid, Negroid, and Mongoloid, are generally recognized. Finally, there may be *subvarieties* such as the Alpine, Nordic, Mediterranean, etc.

Man's ticket of phylogenetic identification would therefore read as follows:

1. Kingdom—Animal
2. Phylum—Chordate
- a. Subphylum—Vertebrate
3. Class—Mammal
- a. Subclass—Eutheria

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- (1) Group—Placental
 - 4. Order—Primate
 - a. Suborder—Pithecoïd
 - (1) Infraorder—Catarrhine
 - 5. Family—Hominoid
 - a. Subfamily—Hominid
 - 6. Genus—Homo
 - 7. Species—Sapiens
 - 8. Variety (Race)—Caucasoid, Mongoloid, Negroid, etc.
 - a. Subvariety—Alpine, Mediterranean, Nordic, etc.

PROBLEMS IN CLASSIFICATION

It is important to realize that any system of classification is the creation of the minds of the men who make it. Categories of classification do not exist *in natura*. How classifications are arranged depends on the purposes the classifier has in mind and on what standards he selects as relevant to these purposes. A barrel of apples may be classified as to color, size, juiciness, tartness, ripeness, toughness of skin, size of seeds, shape, and a number of other less obvious traits. An apple merchant may sort apples according to one quality and ignore all others. This does not mean that his system of classification is wrong, providing the traits he selects consist of actual characteristics of apples. An apple fancier might choose other traits. His system would be neither wrong nor right when compared to the produce merchant's. It would be more suitable to his purposes.

Another basic fact should also be kept in mind when thinking about systems of classification. Many traits form a variable continuum. This means that between the extreme manifestations of a trait there will be small degrees of difference as between individual samples. Yet all classifications use measurable units with defined boundaries. The setting of these boundaries is an arbitrary act, which often necessarily does a certain amount of damage to the real facts.

In point of illustration, suppose we half fill a beaker with pure, distilled water. Now from a bottle of ink we begin transferring ink to the beaker of water, drop by drop. At the outset there is no ambiguity about the one vessel containing ink and the other water. In the course of time, if we are persistent and patient, the water will become so pigmented that we decide to classify it as light-blue water. Later, we agree that it has become dark-blue water. Still later, if we transfer enough ink, we determine that it is no longer water but ink. But at what point did it become ink? Ordinarily this would not pose a problem for us, and a decision would not be necessary. We would be content merely to say, "Well,

it could be weak ink. Or maybe it's colored water." But suppose, for some reason it is essential or desirable to make a clear decision. Then an arbitrary criterion must be determined, and we may say, "If it contains 1.075 per cent of such and such a pigment, it is ink. If it contains 1.0749 per cent of the pigment, it cannot then be ink." The gap between ink and not-ink is made to seem more real than it really is. For the purposes of classification this cannot be avoided; the inherent arbitrariness of the decision nevertheless serves our purposes and enables us to get ahead with our work, albeit at the price of warping our conception of reality.

This is why the lawyers have an old adage: *Hard cases make bad law*. Every legal decision classifies a specific act as being legal or illegal. Some cases, however, fall on the borderline. Yet it is felt that the circumstances of the case require a decision. Whichever way the mind of the court finally goes, it will have to rule against the social relevance of some of the mitigating factors on one side of the dividing line or the other. If it decides the action is legal, the defendant is allowed to get away with "murder." If it decides the action is illegal, the defendant will be punished for that part of his behavior which people feel is not especially reprehensible.

When it comes to classifying biological forms we can parody the lawyer's maxim and say, *Clean-cut classifications do violence to borderline cases*.

The pertinence of this discussion bears on the question, "When is a primate a man?" The first thing to note is that there is no absolute agreement with respect to details. Anthropologists and primatologists have agreed on the larger criteria, however. There is also general agreement that all living apes are *pongids* or *hylobates* and not *hominids*. But the sticky problem arises when we are confronted with a number of intermediary fossil ape men. Are they apes or are they men? Or is it not foolish to try to force the issue? May it not be better directly to recognize that in the gradual emergence of man from early primate forms there was a long period of time in which certain types had progressed beyond apehood or monkeyhood but had not yet attained humanity? This is exactly what has been done in the case of *Pithecanthropus*, for example. His name (the label on his classificatory box) signifies "ape" (Gr. *pithēkos* ape) plus "man" (Gr. *anthrōpos* man). He is given an intermediary status.

The problem of reaching agreement on what combination of traits, or degrees of modification of traits, mark a type as being specifically human or subhuman, still remains moot, however, with respect to many intermediary forms. For the time being the sensible thing to do is to leave the question open in a number of instances until more facts are available.

Still, if one wants to give free rein to the imagination, it is possible to

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conceive a situation in which the purposes of society force a decision. This has been done in the intriguing modern novel by the French writer Vercors, who poses a fictional situation in which a scientific expedition discovers a living population of ape men in the interior of New Guinea. Are they domesticable animals who can be exploited without wages in the woolen mills of Australia? Or are they human beings entitled to fundamental human rights because they are men? Science may beg the question. Society may not. How the decision is forced, and the winning through to a solution, is something that will be left for the reader to discover for himself from the pages of Vercors' own book. It is well worth reading.¹

PRIMATE CHARACTERISTICS

Among the mammals the morphological traits that are generally agreed upon as distinguishing the primates are as follows:

1. The brain is relatively larger, especially in proportion to body size, than that of other animals.
2. The eyes are located forward on the skull, rather than back and to the sides; the back of the eye socket is closed and encircled with a bony ridge; in other mammals it is open at the sides and rear.
3. The forepaws are flexible, with five digits; the thumb is opposable (i.e., it can be rotated so as to face the fingers). In other words, it has a prehensile, or grasping, hand. It can manipulate.
4. The hind paws retain five flexible toes.
5. The claws have become flat nails.
6. The digits have soft, fleshy pads on the underside, which facilitate grasping by providing a nonskid tread.
7. The forearm exhibits a high degree of flexion; i.e., with the elbow steady it may be rotated clockwise or counterclockwise almost through a full circle.
8. The snout and jaws are reduced in size and forward projection.
9. The olfactory sense is reduced and vision sharpened.
10. Generally, there are but two mammary glands.
11. The female bears but one, or at most a few, offspring at a time, instead of a litter.
12. Adults are sexually active the year around, a condition known as *oestrous*, instead of being limited to well-marked rutting seasons.
13. Whereas the generalized mammalian dentition includes forty-four teeth in a dental formula of $\frac{3.1.4.3}{3.1.4.3} \times 2 = 44$ (i.e., each half of the upper and lower jaws contains three incisors, one canine, four premolars, and

¹ Vercors, *You Shall Know Them*.

three molars), among the primates this has been reduced to a total of thirty-two in the case of the hominoids, and to an intermediary number in various other primates. The hominoid dental formula is $\frac{2.1.2.3}{2.1.2.3} \times 2 = 32$.

The specialist will also note a number of finer details that are specifically primate. As Professor Howells observes, there is little that is really special about the primates as compared to other mammals. The differences are mainly in degree rather than kind.²

HOMINID CHARACTERISTICS

Man, as the most highly developed primate, possesses all the above characteristics in their most clearly distinguishable forms. This means that he has the largest brain, eyes set fully forward in completely enclosed sockets with the backwalls of the orbits fully formed, the smallest jaw, the fewest teeth, the bony structure of the nose (snout) most fully shrunk, and the most flexion of the fore limbs. The special and distinctive modifications that man has developed in his evolution away from the more primitive and generalized primate ancestral type will be detailed as we proceed with the examination of the fossil and contemporary representatives of the hominids.

PRIMATE PHYLOGENY

In the preceding chapter several types of evidence were presented to show the bases on which the close relationship of man to the apes and monkeys is predicated. From these and similar data the principle that man has evolved, or ascended, from lower animal forms is derived. Two separate ideas are involved in this statement. The first rests upon the zoological proposition that two or more animal forms showing a large number of significant similarities in form and function must be more or less closely related. The second proposition is that close relationship means common ancestry. Further, the greater the detailed similarity in form and function, the more definite is the commonness of ancestry.

Because man and the living simians have so many detailed traits in common, this is rational evidence of their common ancestry. This must not be taken to mean, however, that the numerous kinds of monkeys, apes, and men have a common ancestor. The primate order has enjoyed seventy million years of evolutionary development since the beginning of the Eocene period. During the protracted span of the Eocene, Oligocene, and Miocene periods hundreds of varieties and breeds of numerous primate genera have occurred. It is therefore wrong to speak of any

² W. W. Howells, *Mankind So Far*, pp. 44-45.

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of these forms as *the* missing link, as though there were just one ancestral form. It must be realized at the outset that there are a number of series of missing links which make a complex pattern back to remote antiquity. *There is no common ancestor, but many ancestral predecessors.* A complete family tree of man, the apes, and monkeys would include a truly bewildering number of fossil ancestors.

In the usage of this text, following the terminology of Prof. Le Gros Clark,³ the term *simian* refers to all the primates above the level of the lemuroids and tarsoids, who are grouped with the tree shrews as *prosimians*. The term *pongoid* refers explicitly to the apes. The term *hominoid* includes the apes and manlike creatures, and the term *hominid* refers only to human forms.

All living higher primates carry some of their common heritage into the present, but the fact that the apes have certain traits does not necessarily mean that man's early ancestors also had them.

Apes, too, have evolved and changed in the past several million years and they have developed their own distinctive specializations, such as the overgrown canine tusks which were not characteristic of the earlier primate ancestors.

At no time, then, has man passed through an evolutionary stage in which he exhibited total characteristics exactly like those of the living apes, or living monkeys either. Consequently, when we say a hominid trait is *pongoid*, we mean that it reveals qualities similar to those found in apes, and when we refer to it as *simian*, we mean that it is analogous to primitive ape-monkey forms. If we call a trait *prosimian*, it means that the trait is referable to the ancestral form as it occurred before apes or monkeys as such had emerged.

Phylogenetically, it is best to think of apes as our backward cousins, of contemporary monkeys as our more remotely related and more retarded cousins. Our true ancestors are to be known only from the defunct fossils given up by the rocks of earlier Cenozoic times.

Prosimia: Lemur, Tarsius, and Tree Shrew. A few, shy species of tree-dwelling primates are found living in out-of-the-way places in various parts of the Old World. Remnants of fossilized forms of approximately identical character are unearthed in Eocene deposits in both the Old and New World. Once the greater part of the globe was their domain. In later times they were all but crowded out by their ambitious, evolutionarily more progressive relatives, the later primates. Prosimian fossils, however, are found in every period all the way up through the Cenozoic era. Some lines of primates have changed but little since their first emergence.

The living prosimia are limited to the lemur (located in Madagascar,

³ W. E. Le Gros Clark, *The Fossil Evidence for Human Evolution*.

Africa, and Asia), tarsius, located in north-central Indonesia (Borneo, Celebes, and the Philippines), and the tree shrew, which is rather widely spread through southern and southeastern Asia.

The lemur looks rather like a little raccoon, except for his befingered hands and feet. His long snout with wet doglike nostrils is more "general mammalian" in character than primate, as are his large, movable ears and split upper lip. But the lemur's brain, his prehensile "hands,"⁴ and flexible limbs mark him as a lowly type of primate. He is a timid little beastie who makes out the greater part of his life in the trees and is active mostly at night, providing in this last proclivity a good precedent for some of his human relatives. In evolutionary morphology the lemur approximates a mid-point between insectivores and monkeys. He is a primitive primate, but not the most primitive of the forms that we would place in the primate order.

The tarsius (so named because of the extreme development of the tarsal bones in his ankles) exhibits many of the general features of early primates and in spite of his specializations could be very close to the original ancestral type. He is smaller than the lemur—rather ratty in size, but looking somewhat more like Mickey Mouse without shoes and knee pants. He sports a small nose and large, goggly eyes—the better to see at night—and a free upper lip like monkeys and man—a lip that can be curled, albeit not in a supercilious sneer. He has full flexion of the neck, which can be swiveled in a complete half circle. These are all traits that point in the direction taken by the higher primates.

The evolutionary adaptation of tarsius is all for the trees, however. And this has its limitations. There is a lot more ground than there are trees on this earth of ours, and the primates who were ultimately destined to go places are the ones who managed to come down to earth.

The tree-dwelling propensities of the tarsius are most effectively met in the way he has developed round, platterlike toe tips and fingertips with increased friction surfaces for clamping onto boughs. Like other primates, he does not have to dig in with sharp claws to climb and move about. Safe hand-and-foot contact is made much more quickly without claws, even though it may seem that squirrels and birds do all right in this respect. His most remarkable specialization, however, is the elongation of his tarsals. This gives him extra effective leverage for sudden, propulsive jumping, while at the same time the toes at the end of his foot retain their prehensility for grasping.

The tree shrews confront us with a genuine borderline situation. There is no clear agreement among zoologists as to whether they should be ad-

⁴ The Madagascar aye-aye is much more like an insectivore with its sharp claws and gnawing incisors. The aye-aye is a deviant in the direction of nonprimate mammalian animals.

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mitted into the order of primates or should remain relegated to the lower order of insectivores. Superficially they are much like squirrels in their bushy-tailed appearance and with their sharp-clawed digits. Yet with their generalized incisor teeth, which are not of the gnawing type developed by rodents, the greater mobility of their fingers and toes, their relatively larger brains and greater acuity of vision, they are (if they are still insectivores) insectivores that show notable primate propensities. Indeed, in a number of details of skeletal and muscular construction they show specific lemuroid leanings.

All in all, in the well-informed judgment of Le Gros Clark, "It seems very probable that the tree-shrews represent in their general structure a tolerably close approximation to the earliest phases in the evolution of the primates from generalized mammalian ancestors."⁵

The lemur, tarsius, and tree shrew provide us with a number of examples of what the first Eocene primate ancestors must have been like—with the tree shrew coming closest to the probable ancestral prototype.

The Monkeys. The living monkeys fall into two main infraorders within the suborder of pithecoids: (1) the catarrhines (Gr. *kata* downward + *rhis*, *rhinos* nose) or downward-nosed Old World monkeys and apes, and (2) the platyrrhines (Gr. *platys* broad + *rhis*, *rhinos* nose) or broad-nosed New World monkeys. In North America all primates became extinct in Oligocene times, and from that remote age onward the evolution of primates in the Western Hemisphere went forward without any genetic interaction with the primates of Asia, Europe, and Africa. The similarities between the later primates of the Old and New World are the result of parallel development from common ancestral types.

In the New World, for whatever combination of causes, primate evolution never went beyond the monkey stage. New World monkeys are notable mainly for their flat faces and long, frequently prehensile, tails. Because their alley leads away from the main line of human evolution, we need not give further attention to them.

The importance of the Old World monkeys for understanding what took place in the emergence of man is a moot question. The prevailing view is that advocated by Thomas Aldous Huxley, Darwin's protagonist, nearly a century ago, in his treatise *Evidence as to Man's Place in Nature* (1863). The Huxley hypothesis derives man from an apelike ancestor in turn derived from an earlier pithecoid ancestor from which the hominoid form, leading to man, radiated in one direction, while the branches leading to the monkeys went in another. This view is shown in Figure 3-1.

A minority view first advanced by the French anthropologist Marcelin Boule⁶ that has recently received strong support from the primatologist

⁵ W. E. Le Gros Clark, *History of the Primates*, pp. 43-44.

⁶ M. Boule, *Les Hommes Fossiles*.

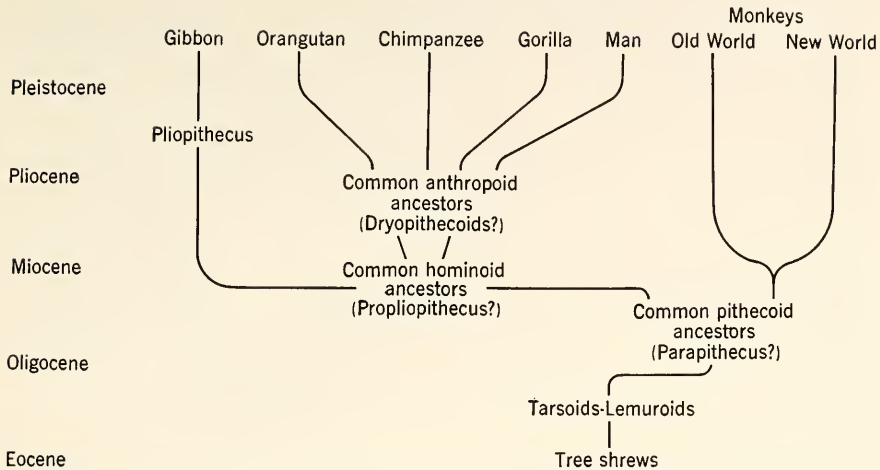


Fig. 3-1. Inferred phylogenetic relations of the primates according to the Huxley hypothesis.

William L. Straus, Jr., of Johns Hopkins, and others is that the weight of the evidence points to a direct evolution of man from a proto-Old-World-monkey form. This hypothesis holds that the hominoid branch developed *before* and separately from that which produced the great apes (Fig. 3-2). According to Straus's interpretation of the evidence, the apes and their immediate predecessors do not figure at all in human evolution. Such similarities as exist between man and the apes are held to be parallel developments from a prepongoid ancestor.

Straus lists fifteen important traits (some morphological, some ontogenetic) in which man is notably closer to the monkeys than he is to the apes. As an example of the kinds of evidence used in comparative anatomy these may be worth listing here:

1. The sequence of eruption of the deciduous teeth, especially the early eruption of the canines
2. The tendency toward late obliteration of the cranial sutures
3. The anterior convergence of the mandibular rami (the horizontal structures of the lower jaw)
4. The absence of a *simian shelf*, or plateau, formed on the inside of the juncture of the mandibular rami at the symphysis
5. The distance between thorax and pelvis
6. The quadrupedal position in which the hands are placed palms down when going on all fours
7. The comparatively generalized proportions of the hands, especially in relation to the development of the thumbs
8. The generalized nature of the muscle structure of the hands

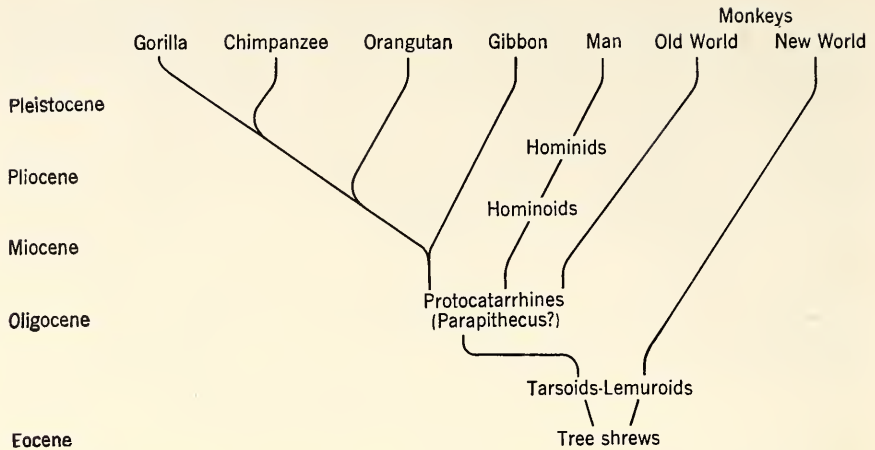


Fig. 3-2. Inferred phylogenetic relations of the primates according to the Boule-Straus hypothesis.

9. The generalized nature of the buttocks, especially the absence of ischial callosities

10. The relative length of the mid-tarsal segment in the foot

11. Essentially generalized features in the leg and foot musculature

12. Limited development of the fore limbs

13. The primitive mammalian sequence of epiphysial union

14. Primitive pattern of dental impressions (dermatoglyphics)

15. Absence of a sexual skin in the female⁷

On such grounds as these Straus concludes,

Probably the greatest weakness of the anthropoid-ape theory (the Huxley hypothesis) is that it ignores the considerable number of human characters that can only be regarded as essentially generalized and which find their counterparts not in the anthropoid apes but in such primates as the monkeys and prosimians. In other words, in many characters, and particularly in those that define an anthropoid ape, the anthropoids (and the great ones especially) can only be regarded as far more specialized than man.

Therefore,

It is concluded that available evidence indicates that the line leading to man became independent at a relatively early date, probably no later than the end of the Oligocene period, and the stock from which it arose was essentially monkey-like rather than anthropoid-like.⁸

⁷ W. L. Straus, Jr., "The Riddle of Man's Ancestry" (*The Quarterly Review of Biology*, Vol. 24, 1949), pp. 200-233.

⁸ Straus, *op. cit.*, p. 233.

If future additional evidence causes this interpretation ultimately to win out, then the Old World monkeys and their predecessors will assume the greatest importance in the history of man's ascent from lower forms. On the other hand, if more information and knowledge, as it comes in, indicates, as has usually been held, that man's affinities are closer to the orangutan, gorilla, and chimpanzee, then it will be the apes that assume priority of importance. For the present, we can only say that each hypothesis has a good deal to commend it, although the Boule-Straus hypothesis appears to gain more support as more facts accrue.

The Great Apes. The living pongids consist of the African gorilla and chimpanzee along with the East Indian orangutan. The Malayan gibbon (*Hyllobates*) is also usually classed in this infraorder.

Almost all the distinctive features of adult apes are tied up with the fact that they have become adapted to semierect posture combined with brachiation. The apes walk on their hind legs when traveling on the ground, using their fore limbs more or less as crutches. When walking they do not put the palms of their hands flat on the ground like footpads but rock on their knuckles with the fist in a semiclenched condition. Although monkeys, like dogs, can be trained to walk on their hind legs, they do not do this naturally. Apes do.

The pongids, however, have never taken wholeheartedly to ground living. They are largely addicted to life in the trees. Yet in their mode of getting about from branch to branch and tree to tree, they have greatly modified their technique from that used by the ancestral primates and still retained by the monkeys. Instead of running and springing, they brachiate, i.e., move by swinging from the fore limbs.

Many skeletal and muscular adjustments have accompanied these two changes in basic living habits—arm-swinging and semierect walking. The feet have lost some of their mobility and a considerable amount of their prehensibility. The leg bones are much stouter and have much more pronounced dorsal ridges (the *linea aspera*) for anchoring the flexing muscles that run to the thigh and pelvis. The *ilia* in the pelvis have flared out, and the whole hip structure has become shorter and wider (Fig. 4-1). The spine has become more massive and rigid with fewer vertebrae. The shoulders have broadened; the chest has become more like a barrel and less like the prow of a ship; the breastbone has become short and stubby.

The fore limbs of the apes have become enormously elongated and strengthened relative to the length of the body, for this pair of limbs bears most of the brunt in getting about in the trees. Their hands are more handlike, while at the other end they have lost their tails—externally, that is; a vestigial tail is still to be found in the coccyx, as it is in man.

In the skull the *occipital condyles*, the hinges on which the skull articulates with the spine, have moved from a position far back on the oc-

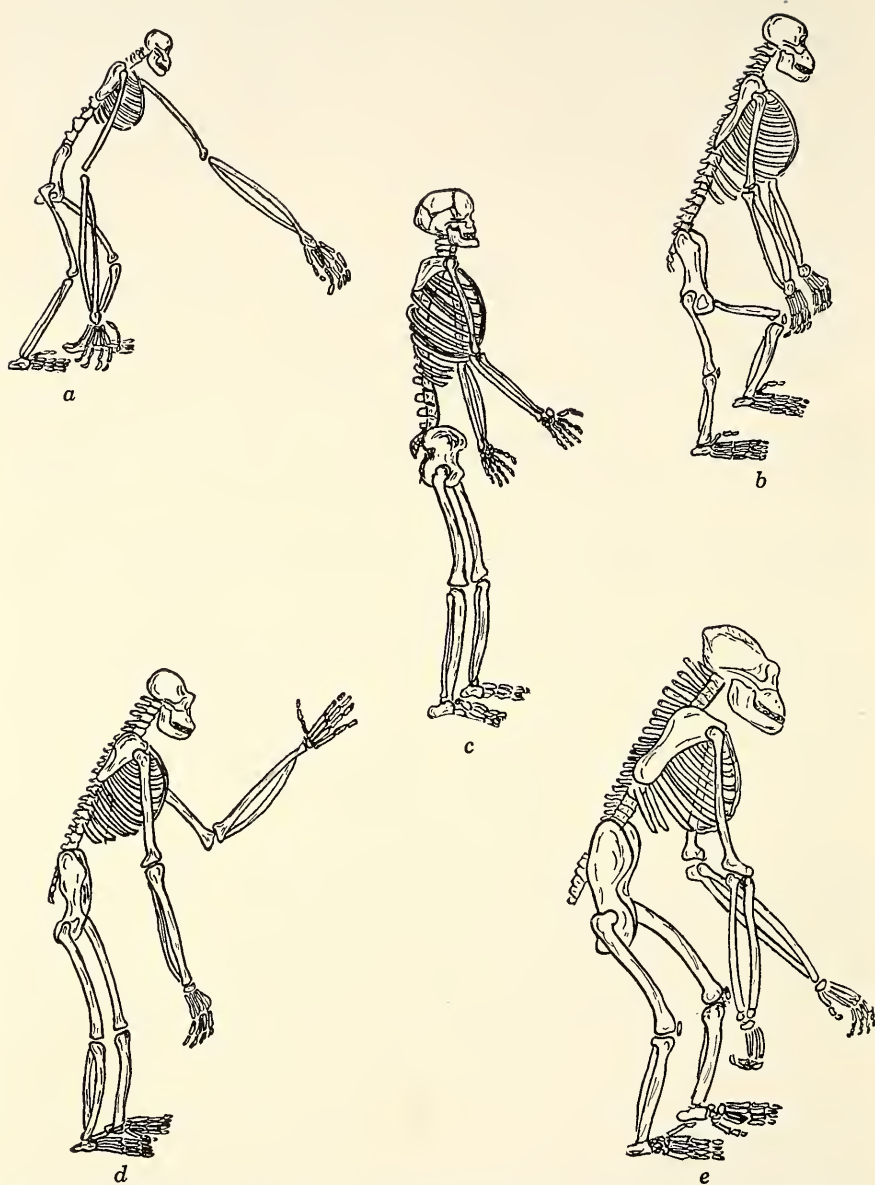


Fig. 3-3. The skeletons of man and the anthropoid apes: (a) Gibbon. (b) Orangutan. (c) Man. (d) Chimpanzee. (e) Gorilla.

capital bone forward to an intermediary position. The related *foramen magnum*, or great opening, through which the spinal cord passes from the cranium as an appendage of the brain, has also moved forward and downward from a vertical orientation to one that forms an acute angle with an imaginary horizontal base line.

In adult males, especially, the heavy chewing and neck musculature is attached to remarkable bony ridges that form sharp crests along the top of the skull and across the occiput.

In dentition, the apes have molars in the same number as man and similarly modified in the loss of the medial, transverse ridges, characteristic of lower primates, plus the development of the four-cusp pattern for the upper molars, with five cusps for the lower.

The canine teeth of the apes are very different from those of man, however, and they even exaggerate the tendency of the lower primates to possess conical, daggerish canines projecting well beyond the surface level of the other teeth and overlapping each other.

The brains of these creatures, while far below that of the hominids in mental capacity and development, far exceed those of all other animals. Within limits they are truly inventive and capable of protocultural producing activities. They have considerable imitative learning capacities. This is especially true in the case of the chimpanzee; apes can "ape" man and they do not have to descend to mere "monkey business."

Because of the paucity of complete fossil skeletons of Miocene and Pliocene simians, it is necessary for us to make frequent cross comparisons to the morphology of living apes and monkeys when we want to show some of the special evolutionary modifications that have occurred in man. Nevertheless, it is much to be preferred to refer directly to the fossil precursors of man, because the hominids have followed separate paths in their evolution, at least since Pliocene times, and in all probability since Miocene times as well. Man's ancestors were once tree dwellers, but his more immediate precursors took to the ground and rapidly became adapted to a bipedal, terrestrial existence. Many of the adaptive features of the hominids are distinctly different, therefore, from those of the living apes.

SUMMARY

Man's position among the creatures of the animal kingdom is clear and definite. He is a primate. The major problem as yet unanswered with certainty is: Along what route of primate development did man evolve to his present state? Did the hominids radiate from the pongoid group, as the Huxley hypothesis infers? Or did the hominid branch first bud off from a more basic primate trunk long before the apes as such had emerged,

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as the Boule-Straus hypothesis proposes? In other words, did man pass through an ape stage, or did he bypass this by branching off on his own, paralleling the development of some of the apes in some respects but outstripping them with a much more rapid and extensive evolutionary development? A final answer to these questions is not yet possible. There is evidence to support both positions, but many more details of fact must be determined before the scales are finally tipped one way or the other. By whatever route man arrived at his present state, *Homo sapiens* was not differentiated from lower hominids until Pleistocene times, or within the past million years.

SELECTED READINGS

- Clark, W. G. Le G.: *History of the Primates* (2d ed.). A general summary by a leading authority.
- Hooton, E. A.: *Man's Poor Relations*. A delightful and fascinating presentation of what is authoritatively known about the behavior of the different primates. In reading, substitute "local group" wherever Hooton refers to primate "clans."
- Straus, W. L., Jr.: "The Riddle of Man's Ancestry" (*Quarterly Review of Biology*, Vol. 24, 1949), pp. 200-233; reprinted in the *Yearbook of Physical Anthropology*, 1948, pp. 134-157. For those who wish to delve more deeply into the details of Straus's data.

CHAPTER 4. Fossil Man: The

South African Hominids

AFTER THE extinction of Eocene prosimians in North America, that great continent bore no imprint of primate paws until the first Paleoindians trudged across the wintry sweeps of the late Pleistocene land bridge that linked Siberia and western Alaska. In Europe the native monkeys and apes became extinct in Miocene times, leaving Asia and its appendages which extend into the western Pacific, Africa, and South America as the remaining possible stages for the emergence of man. It was evident that South America had evolved nothing higher than the platyrrhine monkeys, and it would be hopeless to search for the origins of man there. The attention of paleontologists on the prowl for fossil man was therefore focused on the Old World and, specifically, on Southeast Asia.

The spotlight was at first on Asia for two reasons. First, in the decades following Darwin's epoch-making work, Africa was still the Dark Continent. Explorers were too busy finding their ways to the living tribes, to say nothing of digging for lost ancestors. Second, Europeans were blinded by the earlier glories of the Middle and Far East as the seedbed of ancient civilizations. *In Oriente lux*. Where civilization first emerged, it was reasoned (not without good cause), man might have taken his long, running start.

Further, the Siwalik hills of India had produced Miocene fossil apes and fossil fauna similar to those associated with the fossilized simians which had been found in Sumatra and Java. This could mean that anthropoid precursors of humanity might very well have developed in South Asia. Following this lead, the Dutch anatomist Eugene Dubois joined the medical service of the Netherlands East Indies army to get the chance to hunt for fossil man in Southeast Asia. His spectacular discovery in the early

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1890s of Java man, whom he named *Pithecanthropus erectus*, seemed to clinch the case for the Orient. The Fayum Oligocene deposits in Egypt also produced some important prosimian fossilized jaw fragments¹ late in the nineteenth century, but such was the set of mind of European thinkers at the time that they thought of Egypt as belonging to the East rather than to Africa.

True, Charles Dawson, with his purported discoveries of the Piltdown fossils from 1909 to 1915 (of which more anon), threw a bombshell into the Oriental-origin idea and seemingly restored Britain to her rightful place as the leader in all things. But Africa remained unchampioned as an original home of emergent man. With the dominance of the ape-anthropoid hypothesis at the time, and with Africa as the homeland of the most manlike of living apes—the gorilla and chimpanzee—this was strange, indeed. But ideas, even revolutionary ones, once they have taken hold, have a tenacity that is not easily shaken.

All this has recently been changed by the rich and significant discoveries of fossils in profusion from Palestine, and from East and South Africa, especially Rhodesia.

AUSTRALOPITHECUS AFRICANUS

In 1924 Raymond A. Dart, of the University of Witwatersrand, reported the find of a nearly perfect juvenile skull from the commercial quarries near Taungs, Rhodesia. Its association with numerous extinct Pleistocene fossils, including monkeys, made its antiquity apparent. Because of its infantile age (about six years, as based on a projection of the rate of eruption of deciduous and molar teeth), it was not possible to tell very much about the adult characteristics of the new genus which it clearly represented. Infants and fetuses of all simians are remarkably alike; it is only with advancing age that species differences become markedly exaggerated, and more so in males than in females. Among the pongoids such traits are especially marked in the relative ruggedness of bony growth, such as the orbital ridges, facial prognathism, and the sagittal and occipital crests of the cranium. In *Homo sapiens* such traits retain much of their infantile quality in the smooth, bulbous cranium and relatively small face with weak jaws. This is the quality known as *paedomorphism* (Gr. *paidos* child + *morphē* form). The characteristic of more rugged features in adult, male apes is called *gerontomorphism* (Gr. *geron* old man + *morphē* form).

In the case of Dart's Taungs specimen, it was not at first clear whether

¹ *Propithecus* and *Parapithecus*.

the paedomorphism that gave such a generally human quality to the contours of the whole skull was a species trait that would also characterize its parents, or whether it was a baby face only because it had not grown up before it met its end.

Nevertheless, the importance of the find was not to be doubted. If *Australopithecus africanus*, or the Southern Ape of Africa, was only an ape and not an ape man, it was surely a more highly developed ape than any hitherto known. Sir Arthur Keith, on careful examination of the skull, emphasized the human qualities of its teeth (as had Dart) in support of the view that the Taungs infant, while generally pongoid, could very well be viewed as diverging toward the human branch of the hominoids.² The Pleistocene age of the specimen made it impossible to accept it as an actual ancestor of man, however, since true hominid fossils of the same age were already well known.

Persistence, like virtue, is said to bring its own rewards. In the search for further remains of *Australopithecus* this has certainly been the case. Or perhaps it has been mostly due to the fact that fossilizing conditions were favorable in Northern Rhodesia and primates were scurrying about in profusion in that area a million or so years ago. At any rate, Prof. R. A. Dart and the venerable and doughty South African Dutchman, Prof. R. Broom, aided and abetted by a host of other professionals and amateurs (including a schoolboy), have unearthed a welter of australopithecine fossils since 1935.³ Every year adds additional, significant finds to the inventory. Today at least several dozen individuals are represented by cranial and skeletal parts. Some of the crania are complete and beautifully preserved.

Broom and Dart have been moved to assign various of the South African finds to distinctive genera and species. The fossils found at the site of Makapansgat, some 350 miles from Taungs, seemed to be different enough to Dart for him to propose a new species of *Australopithecus*, to be called *A. prometheus* (Bringer of Fire), since it was first inferred that the deposits showed evidence of domestic use of fire. If this had been true, it would certainly have revealed this group of hominoids to be culture producers. Alas, for his Promethean proclivities, however, it is now agreed that there is no reliable basis for this particular inference.

Broom, for his part, postulated three additional genera among the fossils: *Plesianthropus transvaalensis* (based on full crania and innominate bones of the pelvic girdle, and other skeletal parts), found at Sterkfontein,

² A. Keith, *New Discoveries Relating to the Antiquity of Man*.

³ Broom's account of the discovery of some of these fossils is reproduced in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 36-41.

not far from Johannesburg; *Telanthropus* (on the basis of another find at Swartkrans); and *Paranthropus robustus* (a large-toothed type discovered by a farm boy at Kromdraai), with its closely related form *Paranthropus crassidens* (coarse-toothed), found at Swartkrans.

This welter of zoological labels is mentioned here so that the reader will be able, if he runs into them in other sources, to relate them to the *Australopithecus* group. Sherwood Washburn and Le Gros Clark both maintain that it is more reasonable to treat all these specimens as belonging to the genus *Australopithecus*, leaving the question of species differences open until more evidence is in.⁴ This seems not only to be a sensible position for the specialist to take, but it will certainly simplify matters for the nonspecialist. Hence, we will consider *Australopithecus* as a single type to see why it is so significant.

Morphological Features. The skulls of *Australopithecus* present a generally simian quality with small brain cases and protruding, chinless jaws. Yet the cranium shows little of the gerontomorphism that is so marked in the gorilla.

Within the small cranium of *Australopithecus* the brain assumes moderate proportions, varying from about 450 cc to a maximum of 700 cc. Gorilla brains run from around 300 cc to a recorded maximum of 685 cc, while the chimpanzee-orangutan range is 290–475 cc. The average brain of *Australopithecus* is thus larger than those of chimpanzees but not of gorillas.⁵ Relative to body size (for the australopithecines were slight of build) the brain is distinctly larger than that of the massive gorilla and somewhat larger than that of the chimpanzee or orangutan.

A question may be raised as to the validity of comparisons based on mere brain size, since it is well established that there is no correlation between brain size and mental ability within the present human species except in pathological cases of microcephalics and macrocephalics. Nevertheless, as between the several primate genera and in comparison with even lower animal forms, brain volume, cortical surface area, and the relative development of the different parts of the brain are determinable and significant indicators of relative mental capacity and degree of environmental adaptability—including, of course, the ability to produce culture. It will be seen that the higher fossil hominids all have relatively large brains and in the case of modern man, the minimal size (except for microcephalic idiots) is 1,000 cc, and the largest nonpathological brains run to 2,000 cc. The human mean is approximately 1,500 cc for males and 50 cc less for females.

⁴ W. E. Le Gros Clark, *The Fossil Evidence for Human Evolution*, pp. 117–118.

⁵ E. H. Ashton, "The Endocranial Capacities of the Australopithecinae" (*Proceedings of the Zoological Society of London*, Vol. 120, 1950), pp. 715–721.

The proportions of the skull of *Australopithecus* present a high cranial vault when compared to the gorilla.

The next feature that excites interest is the low position of the occipital bony ridge for the attachment of neck muscles (the occipital torus). This phenomenon is distinctly hominid rather than apelike.

The mammalian skull hinges on the atlas (the first cervical vertebra) by means of two bulbous knobs, the occipital condyles. In quadrupeds these are located on the vertical rear wall of the skull. In apes they are at the back of the skull but moved forward and oriented on a slanting plane. In *Homo sapiens* they are well under the skull, beneath the auditory meatus and horizontally oriented. The position of the occipital condyles of *Australopithecus* approximates man's, and is therefore hominid rather than pongoid in quality.

The position of the occipital condyles is functionally related to the orientation of the foramen magnum. It follows that in this feature, too, the australopithecines are hominid.

In apes the mastoid structure is weakly developed, if at all. In man and the australopithecines it juts down as an inverted pyramid. The australopithecines may well have been the first sufferers of mastoiditis, infection of the mastoid sinuses, although there has been no report as yet that any of the extant skulls show pathology of the region.

All these traits combine to indicate that in spite of the apparent general primitiveness of the cranial appearance of *Australopithecus* and the puniness of his brain, the structure of his cranium exhibits generalized hominid features and *predicates upright posture like man's*.

When we look at the lower facial structure and the jaws of the australopithecines, we note that the snouty protrusion of the face combined with small cranium present a general quality of apeness. Attention to certain details, on the other hand, gives a different impression. The upper palate is hominid for the most part. The alveolar arch is rounded and short instead of deep and narrow, as is that of the apes. There is no simian shelf behind the symphysis, and some individuals show the merest beginnings of a chin. There is no gap, or diastema, between the frontal incisors and the canines except for a slight one in some individuals. The canines do not flare out, nor do they show a tusking overlap in any degree. More than this, the immature fossils of *Australopithecus* indicate a tendency toward early replacement of the deciduous teeth by the permanent dentition—a trait characteristic of the hominids and one which is progressively more marked the higher one goes in the primate order. This development is a function of the lengthening of the growth period relative to the total lifespan.

Although the dentition of the australopithecines apparently links them

much more closely to man than to the apes, the teeth are not those of modern man. The premolars and molars are too large, and, in general, said to be rather like those of *Pithecanthropus*.⁶

It has thus far been indicated that the sum of hominid traits in the australopithecine skulls may be taken to outweigh the pongoid traits. On the evidence from the skulls and dentition alone, we are probably confronted with an upright, ground-living, primitive creature who was more man than ape in spite of his dim brain and protruding snout.

It does not take much brains to get up and walk, but it does require a proper skeletal and muscular structure to do so. Certain modifications of the pelvis, leg, footbones, and related muscles are called for. The modifications that ultimately came to mark the human skull in conjunction with upright posture are largely secondary to the posture itself.

Among the earliest hominoids it was the spinal-chest-shoulder-forearm complex that first underwent marked modification through adaptation to brachiation. Then, as the ancestors of the hominids took habitually to the ground, the next great segment to be generally modified was the pelvic-lower-limb complex. Modification of the jaw-face-cranial complex (particularly the great enlargement of the brain) came very late in the phylogeny of man and *Homo sapiens* precursors.⁷ It is now held, with a sound basis of evidence, that the complex of features related to upright posture is *the* most important morphological characteristic of the hominid line and *the* preliminary condition for the later mental development that came to characterize the genus *Homo*. "The total morphological patterns of the limbs and pelvis in the known representatives of the Hominidae thus presents a criterion by which these are distinguished rather abruptly from the known representatives of the Pongidae."⁸

What of the pelvis and legs of *Australopithecus*? Twenty-three years after Dart's discovery of the infant Taungs skull, the Sterkfontein site

⁶ W. E. Le Gros Clark, "Hominid Characters of the Australopithecine Dentition" (*Journal of the Royal Anthropological Institute*, Vol. 80, 1952), pp. 37-54; reprinted in the *Yearbook of Physical Anthropology*, 1951, pp. 163-182. S. Zuckerman takes a very skeptical view of the case for the hominid qualities of the australopithecines, especially with respect to dentition. His case rests to a considerable extent on questions of the kinds of statistical techniques and methods that are best suited to the problems of interpretation. Cf. S. Zuckerman, "Taxonomy and Human Evolution" (*Biological Review*, Vol. 25, 1950), pp. 435-478; reprinted in the *Yearbook of Physical Anthropology*, 1950, pp. 221-264.

⁷ S. L. Washburn, "The New Physical Anthropology" (*Transactions of the New York Academy of Sciences*, Vol. 13, 1951), pp. 298-304; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 59-66. See also W. E. Le Gros Clark, *The Fossil Evidence for Human Evolution*, pp. 11, 13-14, 123.

⁸ Clark, *op. cit.*, p. 14.

yielded a pelvic bone amid a welter of other skeletal remains which fortunately also included a thighbone (femur) and shinbone (tibia). The next year (1948) the site at Makapansgat produced a pelvic bone of an adolescent (presumably belonging to the teen-ager whose jaw had previously been discovered in the same spot). In 1950 yet another pelvis came from Swartkrans, and in 1953 a complete pelvis was dug out at Sterkfontein.

Dart's sketch of the Makapansgat innominate, compared with a human one, is shown in Figure 4-1. The hominid quality of the *Australopithecus* pelvis is patently clear. To indicate the significance of the australopithecine pelvic structure, some of the adaptive modifications achieved in the human pelvis may be seen by reference to Figure 4-1. They are as follows:

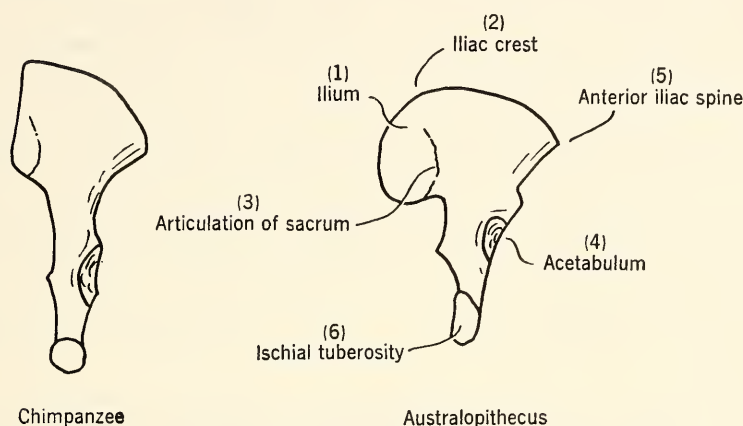


Fig. 4-1. Lateral shape of pelvis of the chimpanzee compared with *Australopithecus africanus*.

1. Extension of the lateral attachment of the gluteal musculature of the buttock in a broadening of the ilium. This produces an adequate balancing effect for the upper portions of the body, which rest on the sacrum.

2. The downward swing of the iliac crest in the sacral area places the point of attachment of the gluteus maximus *behind* the hip (instead of lateral to the hip), improving the effectiveness of its extensor function in erect walking.

3. The shift of the sacrum (on which the whole spinal column now rests) up and in close to the hip socket (acetabulum) improves stability in transmission of the weight of the trunk to the hip joint.

4. The shift of the sacrum also provides a certain amount of basinlike support for the internal organs which now rest in the abdominal-pelvic basin.

5. The new ruggedness of the anterior iliac spine provides a firm rooting for the ligament (the iliofemoral) that runs from the hip to the thigh to provide countertension to the gluteus maximus in erect standing.

6. The shortening of the distance between the ischial tuberosity (the knob at the bottom of the pelvis) and the hip socket brings the anchorage of the upper end of the hamstring muscles into a position behind the hip joint rather than under it, a further aid in the maintenance of upright posture.⁹

The *Australopithecus* leg bones also show conformity to the demands of upright posture.

Phylogenetic Significance. The australopithecine fossils come from water-made fissures and deep caves made in limestone deposits which were later filled in with lime-cemented sand and pebbles. The resulting breccia does not produce the kind of stratigraphy that makes for clear chronology, nor was this part of Africa glaciated. The age of the australopithecine organic materials is beyond the range of C-14 dating, so reliance must be had on associated fossil materials for dating purposes. Many of these represent extinct mammals which, in Europe, are definitely mid-Pliocene in antiquity. However, the fossil remains of the true horse among the australopithecine associates argues for an early Pleistocene survival of the other forms in South Africa and a consequent Lower Pleistocene date for the age of the australopithecine populations. The immediate ancestors of these beings would have differentiated from the main hominid trunk at least by Pliocene times.

Even though crude stone artifacts have been well known from comparable geologic levels in the Transvaal, no worked implements of any sort had been found prior to 1950 in the australopithecine sites proper. On the basis of this negative evidence it has been argued that in spite of his hominid physical traits *Australopithecus* was mentally still on a sub-cultural level. If this were true, he would then be relegated to a subhuman hominoid position in the evolutionary scheme of the primates, for the functional criterion of true man is the ability to produce culture.

On behalf of his australopithecines, Dart has stoutly argued that they did use weapons in a patterned way—not stone tools, perhaps, but clubs of bones. Else how to account for the myriads of clobbered baboon skulls that come from the rock fissures and caves in which *Australopithecus* is found? Out of one collection of fifty-two *Parapapio* skulls, forty-eight, or seventy-two per cent, had died of skull fracture! Most of the fractures are on the left frontal region of the baboon skulls, and many bear the imprint of a dual point of impact. Using the reasoning of the expert in forensic medicine testifying on a case of presumptive criminal homicide, Professor Dart argues that the circumstantial evidence shows death by frontal attack

⁹ Clark, *op. cit.*, pp. 151–152.

with a double-knobbed crusher (possibly the leg bone of a large animal) wielded by right-handed individuals.¹⁰ Culture takes a variety of forms. And food-getting techniques are basic.

Be that as it may, the big news of the spring of 1955 was that a definite paleolithic assemblage of tools was found in direct association with *Australopithecus* remains. If other competent authorities confirm Dart's evaluation of these objects as purposefully shaped artifacts, then indeed will the australopithecines have passed the entrance qualifications to the Academy of Man.

SUMMARY

Australopithecus is without doubt a genuine form that is intermediary between *Homo sapiens* and the lower simia. He has retained the generalized traits of the lower primates that survive in man and he has few of the specializations that characterize the apes. His own precursors must have taken to the ground in Pliocene times at the latest, and possibly even in the Miocene. The South African individuals that we know today could not themselves be ancestral to modern man, however, for our own immediate precursors, as will be seen in the next chapter, were already in existence during the zenith of the *Australopithecus* epoch.

SELECTED READINGS

Clark, W. G. Le G.: *The Fossil Evidence for Human Evolution*.

Watson, D. M. S.: "Africa and the Origin of Man" (*American Scientist*, Vol. 41, 1953), pp. 427-438. A good general summary.

¹⁰ R. A. Dart, "The Predatory Implemental Technique of *Australopithecus*" (*American Journal of Physical Anthropology*, Vol. 7, 1949), pp. 1-16.

CHAPTER 5. Fossil Man: Asiatic and European Hominids

ASIA AND Europe have as yet produced nothing as primitive among the fossil precursors of man as *Australopithecus*. Yet it is reasonable to believe that Asia, at least, will someday do so. It has been the habitat of a tremendous variety of primates since the earliest times of their emergence and it has produced an abundance of near-human and human fossils of Pleistocene antiquity.

Of these, the most famous is undoubtedly *Pithecanthropus erectus*, the ape man of Java, who walked upright and who created such a stir as "the missing link discovered" just before the turn of the century.

PITHECANTHROPUS ERECTUS

Java man, as he is also known, was discovered in 1891 in sandstone and conglomerate deposits in the valley of the Solo River near Trinil in central Java. His discovery was the result of a deliberate search for primitive fossil man on the part of Eugene Dubois (not by "two boys," as the *New York Herald Tribune* once reported it, as the result of misunderstanding in a telephone conversation by its reporter with a Princeton scientist). These same deposits also yielded fossilized remains of extinct, primitive elephant, hippopotamus, deer, and antelope—all Middle Ice Age forms. The age of the *Pithecanthropus* fossil is held to be coeval with the second (Mindel or Nebraskan) glaciation, roughly 700,000 years.¹

The original remains of Java man consisted of the complete top of the cranium, running from the upper edge of the eye sockets to a point just below the glabella. The lower portions of the skull and all of the face were

¹ H. L. Movius, Jr., "Early Man and Pleistocene Stratigraphy in Southern and Eastern Asia" (*Papers of the Peabody Museum of American Archaeology and Ethnology*, Harvard University, Vol. 19, 1944).

missing. In addition, Dubois made public the find of a thighbone (which he found 16 yards upstream at the same level as the skull).

The Java cranium (Fig. 5-1) is quite unlike that of the australopithecines. Instead of the relatively high and rounded cranial vault that characterizes the African specimens, Java man has a flat, receding forehead which slopes back from beetling brow ridges. The supraorbital torus is massive and gorillalike. The temporal regions behind the orbital area are very constricted and narrow, and the greatest breadth of the skull is far back toward the occiput and low down in the temporal area. Although there are no



Fig. 5-1. Restored skull of Java man (*Pithecanthropus erectus*). (American Museum of Natural History.)

sagittal and occipital crests, such as are found on the adult chimpanzee and gorilla, the roof of the skull is markedly gabled and the occipital region is angular.

The inferred cranial capacity of the individual is set just below 1,000 cc (ca. 900 cc). Endocranial contours indicate poor development of the frontal lobes, with the greatest cortical areas in the parietal lobe.

The skull is grossly apelike in general appearance, but clearly hominid—and the cranial capacity is well above that of the largest apes: just below that of the human minimum.

The femur of Java man excited particular interest and won for him the species designation *erectus*. In all respects it is a human type of legbone

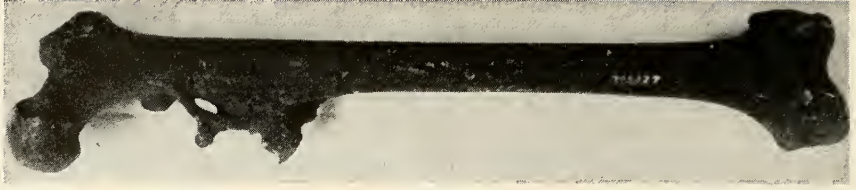


Fig. 5-2. Femur of *Pithecanthropus erectus*. The irregular growth near the condyle is pathological, due to an injury to the bone during life. (Cast. Museum of Anthropology, University of Minnesota.)

such as goes with bipedal, orthograde posture. Java man had come down from the trees.

For many years, skeptics expressed doubt that the bone and calvarium (skullcap) belonged to one individual, and that a being with so primitive a skull could walk on his two hind legs, head up.

For some captious reason Dubois hoarded five other *Pithecanthropus* femurs in the Leiden Museum. These, if he had chosen to reveal them, would have supported his position while he was still alive. Furthermore, recent fluorine analysis confirms the contemporaneousness of all the femurs with the skull *and* with the extinct Pleistocene mammals. In addition, the later Pekin finds conform to the same kind of skull-leg complex.

For nearly half a century Java man stood alone. Then in the mid-1930s the assiduous and systematic efforts of G. H. R. von Koeningswald in Java and South China brought forth a rich harvest of finds, all confirming the validity of Dubois's original contribution and improving our knowledge of many aspects of the total morphology that could originally be reconstructed only by inference and projection. Between 1936 and 1941, when the Japanese invasion put a stop to von Koeningswald's work, seven new representatives of Java man were found in close proximity to the old Trinil site, except for the infant skull found at Modjokerto in eastern Java. The provenance of the others is Sangiran, about twenty miles from Trinil. A helpful feature of the Sangiran site is the occurrence of a differential stratigraphic geology in which an upper Trinil layer rests on an older fossil-yielding stratum of black clay. Five of the seven new individuals come from this lower Djetus level, which on the basis of its mammalian fossil assemblage is Early Pleistocene (possibly first interglacial).

The new assemblage of *Pithecanthropus* fossils includes a full skull (the Modjokerto infant), two complete and two partial calvaria, an excellently preserved upper jaw and teeth, three fragmented lower jaws, and a number of miscellaneous teeth.

On the basis of this abundant assemblage, it is now possible to be quite specific about the human qualities of *Pithecanthropus*.

The qualities of the calvarium already noted for the original Java find

are characteristic of the group as a whole. To these may be added restriction of the nuchal area (the region on the occipital bone to which the back muscles of the neck attach) as further evidence of upright posture. The mastoid process is only moderately developed, while the foramen magnum is far forward in a way comparable to that of *Homo sapiens*. The palate is huge, and there is a strong facial prognathism conforming to massive jaws with recessive chin devoid of the human mental eminence (prow), but at the same time showing not the slightest trace of a simian shelf. The teeth are intermediary between those of apes and those of men, but preponderantly hominid. Their pongoid elements are seen in the presence of a slight canine-incisor diastema in some but not all individuals and in the relatively large size of the molar teeth as against those in the front of the dental arch.

As far as can be told from the incomplete skulls, the cranial capacity of the first *Pithecanthropus* represents the probable average for the genus—approximately 1,000 cc. The *Pithecanthropus* brain, therefore, had progressed well beyond that of *Australopithecus* but still fell far short of modern standards. Big-brain development comes late in human prehistory.

No cultural remains have as yet been located that can definitely be tied to *Pithecanthropus*. But if *Australopithecus* could produce and use tools, Pith certainly could. And since we know from experimental observation that chimpanzees have sufficient problem-solving inventiveness to produce protoculture under laboratory conditions,² we can feel doubly certain that *Pithecanthropus* could. He appears quite definitely to qualify as an ancestor to modern man and, above all, as the most primitive type of *man* yet found.³ In the light of what we now know, his scientific label is a misnomer. He is not at all an ape man. He is a man. If not yet a full *Homo*, he is a hominid, who might better be named *Parahomo* (Gr. *para* besides, near + *homo* man) or at least as Henry Fairfield Osborn suggested years ago, *Paleoanthropus* (Gr. *paleo* ancient + *anthrōpos* man). But as a bad nickname, like "Stinky," will cling to a boy long after his personality has changed, "Pith" seems to be stuck with his inappropriate label for some time to come.

PITHECANTHROPUS PEKINENSIS

This is none other than the famous *Sinanthropus pekinensis*, discovered between 1924 and 1939 in large numbers in the fossil-bearing fissures and caves of the limestone quarries at Chou Kou Tien, near Peking, China.

² See p. 154.

³ F. Weidenreich, "Man or Ape?" (*Natural History*, Vol. 46, 1940), p. 35.

His advent on the roll of dramatis personae of fossil men had been presaged as far back as 1903 when Max Schlosser (the discoverer of *Parapithecus* in Egypt) had culled a fossilized human tooth from a collection of "dragon bones," or Cenozoic mammalian fossils, sent to him at the University of Munich from the German legation in Peking. Schlosser's comment is worth noting, for it is a model of scientific foresight tempered with proper caution:

Only its state of preservation seems to point to a relatively great age, namely Tertiary . . . and on this account it is somewhat risky to assign this tooth to the genus *Homo*, so long as the existence of Tertiary pre-glacial man has not been demonstrated. . . . The object of this communication has been to point out to future investigators who may perhaps be privileged to carry on investigations in China, that there, either a new fossil anthropoid or Tertiary Man, or even ancient Pleistocene man, may be found.

Not until 1924 was any heed paid to this suggestion, however, when at last the Swedish geologist J. G. Andersson recognized "gold" in the fossil deposits of Chou Kou Tien. His first strike was a single human tooth, which was turned over to Dr. Davidson Black, anatomist of the Peking Union Medical College. Black concentrated all his powers of analysis on that one tooth. The tooth, he announced, was the molar of one of a hitherto unknown race of men, henceforth to be known as *Sinanthropus pekinensis*. (The prefix *Sin* signifies China, although, as Will Cuppy remarked, "The Chinese are no worse than other people.") Although skeptics hooted at Dr. Black's audacity, the Rockefeller Foundation was sufficiently impressed to underwrite extensive excavations at Chou Kou Tien. They paid off handsomely, in the years preceding the Japanese invasion of China, with the discovery of fourteen different skulls, some facial bones, quantities of teeth, and eleven limb bones. The diggings also showed ample evidence of the use of fire and yielded a plentiful supply of simple stone tools and other evidences of cultural activities. Of Pekin man we know plenty, although as usual, not as much as we would like to know.⁴

Pekin man is a later and more highly developed form of Java man. Therefore he has been reassigned to the genus of *Pithecanthropus*—and in this case, the change of names may take hold.

Comparison of Figures 5-1 and 5-3 will show the superficially observable identities between Java and Pekin man in the marked brow ridges, receding forehead, ridged sagittal crest, angular occiput, weak mastoid, protruding face, and massive jaw with weak development of the chin.

⁴ Weidenreich's monographs on Pekin man are models of perfection, so detailed in descriptive nicety, that along with the high-quality casts of the fossils that he sent out of China before the cataclysm, they make the total loss of the original fossils in the Japanese invasion less of a catastrophe.



Fig. 5-3. Skull of *pekinensis*. (Cast. Museum of Anthropology, University of Minnesota.)

The cranial capacity of Pekin man attains volumes well above that of Java man, however. The Pekin brains run from 850 cc to 1,300 cc, with a mean of about 1,075 cc. Pekin man has thus far outstripped the great apes and *Australopithecus*. His smallest-brained members had cerebrums nearly as large as the most brainy Java men, and his "big domes" equaled the average of modern men. He was well on the way to biological qualification as *sapiens*.

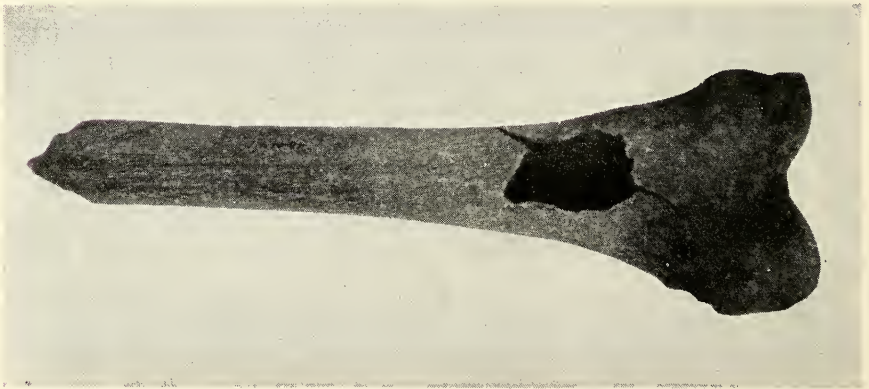
Another cerebral proclivity of Pekin man might well be mentioned at this point. All the skulls of Pekin man had been opened at the base for removal of the brain, just as those from the archaeological sites of the Black Duck culture of prehistoric Minnesota (Figs. 5-4 and 5-5). What is more, the limb bones were hacked at the ends and split down their length. The obvious inference is a diet of human brains and marrow. Pekin man was a presumptive cannibal, a conclusion that is further reinforced by the fact that the skeletons consist of shattered skulls and limbs (no pelvises or vertebrae). It seems as though these people had been decapitated and dis-jointed for transportation to the dark recesses of the caves for macabre banquets.

The prehistoric men of Minnesota worked with more finesse. They did a neat surgical job of bone incision to get at the marrow and then carefully buried the remains, an act which might indicate preparation for ritual interment rather than cannibalism.



Fig. 5-4. *Opposite:* Prehistoric American Indian skull with basal hole for extraction of the brain. Minnesota Black Duck culture. (Museum of Anthropology, University of Minnesota.)

Fig. 5-5. *Below:* Portion of human femur with hole for removal of the marrow. Minnesota Black Duck culture. (Museum of Anthropology, University of Minnesota.)



To leave the gastronomy of Pekin man and return to his physical characteristics, we may summarize the less technical details by calling attention to the nasal spine (which shows he had a definite nose) and note that the nasal apertures are very wide.

The teeth are most human, and although showing some special characteristics not shared by *Homo sapiens*, they have no specifically pongid qualities. Pekin man was evidently a hearty chewer (the cranial and jaw structures indicate massive masseter muscles), and perhaps because he did not clean the grit from his food, his teeth became worn flat early in life.

The scanty remains of body bones differ not at all from those of *Homo sapiens*. To sum up the significance of Pekin man, it may be said that in mid-glacial times the north China coast was definitely the home of a more advanced representative of the evolutionary type that produced the primitive fossil men of Java. Whatever the moralist may feel about Pekin man's anthropophagy, he was an upright person who had mastered the use of fire and had taken the first steps in cultural adaptation to the exigencies of life. Yet he had not gone the whole route in biological adaptation, for the final enlargement of the human brain was yet to come, and with it the finishing touches in reducing face and jaws to their diminutive modern proportions.

HOMO NEANDERTALENSIS

Our trip up the family tree of man now takes us out on a western branch for a look at Neandertal man. The most famous of this populous group of Ice Age hominids is the Old Man of La Chapelle aux Saints, in France, whose massive skull is pictured in Figure 5-6. The species, however, derives its name from the Valley of the Neander, a small stream



Fig. 5-6. Skulls of Neandertal man (left) and Cro-Magnon man (right). (Casts. American Museum of Natural History.)

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tributary to the Ruhr River in the lower Rhine Valley of western Germany; hence, Neandertal.⁵

The first Neandertal skull was found on Gibraltar in 1848, before the time of Darwin. It was viewed as an interesting specimen without its significance striking a response. The type Neandertal was found in its cave in 1856, closer to the advent of Darwinism, and in time to take its place in the excited debates that enlivened the last half of the past century. The evolutionists hailed him as an intermediary, submodern, fossil man. The conservatives sourly held that he was nothing but a pathological freak, probably a peasant; it was even suggested that he might have been a stupid Roman legionnaire of the less soldierly kind who crawled off in the cave for twenty winks and liked it so much he stayed there. The discovery of two more skulls of the same genre at Spy, Belgium, in 1887, put an end to all these scurrilous reflections on the character of the Man of the Valley of the Neander. It now became clear that there had been a different order of man in Europe in earlier times—and what is more, *he* was the producer of the Old Stone Age cultures, the antiquity of which had been established through the efforts of the French archaeologist Boucher de Perthes.

Right after the turn of the century Neandertal men, women, and children began to rise from their graves in profusion—from France and Spain to the Crimea, and then later from Palestine and North Africa, until there was no doubt that Neandertal man had been a very important figure who had really gotten around in his times.

What were those times? The earliest Neandertals lived in the warm period of the second interglacial on through to the third interglacial period. Their direct descendants flourished in the icy caves of the fourth glaciation, only abruptly to die out some 30,000 to 40,000 years ago.

As a man the Neandertaler was an assiduous culture producer. Layer upon layer of cave debris have yielded uncounted thousands of Neandertal-produced chipped-stone artifacts, millions of animal bones left from his feasts, and above all, carefully buried skeletons of his family members complete with hunting tools for use in the spirit world. He had religion. He had begun to think and work out beliefs as to the nature of his ex-

⁵ The original spelling of this word was *Neanderthal*, but just before the First World War an Imperial Commission of Philologists with authority to streamline the German language in the interests of Teutonic efficiency recommended that since German is quite consistently spelled as it is pronounced, the unsounded *h* should be dropped from all *th* combinations except in *der Throne*. For a group of professors to tamper with the seat of the emperor would be lese majesty. Less respectful German wags said it was because of fear that the throne might collapse if the *h* were removed. Be that as it may, physical anthropologists are not philologists and most of them still leave the *h* in Neandertal. Lately, however, the clarion has sounded to call them up to date: See H. Vallois, "Néanderthal-Néandertal?" (*L'Anthropologie*, Vol. 55, 1952), pp. 557-558.

ternal world and the forces that operate in it. His material culture was crude enough; his inventions were limited; but he was starting from the bottom, and had still a long way to go.

Prehistorians now divide the Neandertals into pre-Mousterian and Mousterian. The Mousterian represents the last culture epoch of the Lower Old Stone Age in the West. It is inextricably tied up with Neandertal man and flourished during the first half of the fourth glaciation. Environmental conditions were rigorous in those frigid times, and natural selection working on evolutionary radiation (with perhaps the added effect of genetic drift ⁶), resulted in an extreme intensification of some Neandertal morphological traits. Mousterian Neandertal man is more unlike the general human type than is the pre-Mousterian.

Le Gros Clark and others are of the opinion that the pre-Mousterian Neandertals are flatly *Homo sapiens*. There is nothing about them that would justify putting them in a separate species from modern man, and there is plenty of evidence for aligning them with the *sapiens* species. The transition from *Pithecanthropus* had been achieved.

Let us look at some of these people. First of all there is the Swanscombe fossil from a second interglacial terrace of the Thames River. These terraces yielded the first known Lower Paleolithic hand ax (a beautiful Acheulean specimen found at Gray's Inn Lane, London, in 1680) and have been a happy hunting ground for relic hunters and dealers in stone "spear heads" for generations. Tens of thousands of Old Stone Age tools have been looted from these deposits. The usual early interglacial Boreal Forest fossil fauna (including *Elephas antiquus*, *primigenius*, and *cervus*, Merk's rhinoceros, *Megaceros*, bison, and horse) abound to prove with analytical geology that the terrace gravels were laid down in second interglacial times.

A sample of the men who hunted these beasts, roughed out the hand axes with which they were killed, and knocked off the stone flakes with which they were butchered was finally found in 1937 by Alvan T. Marston, who had been keeping close watch on the removal of the gravels from the pit since 1933. Marston first found a human occipital bone embedded (*in situ*) in the face of the gravel workings 24 feet beneath the present ground surface. Nine months later, after the pit face had been worked back 8 yards, the left parietal of the same skull was found at the same level. Fluorine analysis proves the bones to be as old as those of the extinct Pleistocene mammals. Here is unimpeachable evidence as to the nature of early man in Britain.

Because the muscular markings are light in comparison to the size and thickness of the skull, it is inferred that the individual was a female. The estimated cephalic index of 78 indicates a medium-rounded head, and the

⁶ See Chap. 8.

occipital is very broad. Within the thick-boned cranium was housed a brain of approximately 1,325 cc, just about the modern female average. Even more significant is the modern complexity of cortical convolutions shown on the endocranial cast. The foramen magnum is humanly located well under and forward on the cranium. The Swanscombe woman was upright and human-brained. Although we have no evidence as to her face or teeth or bodily structure, she is certainly a member of the genus *Homo*; and, indeed, Morant has concluded after detailed study, there is nothing about the fragments that would justify excluding her from the species, *sapiens*. On the other hand, there is too little of the fossil available to warrant asserting that she is a *Homo sapiens*.⁷

Several years prior to the Swanscombe discovery, a comparable Early Pleistocene human skull was found at Steinheim, near Stuttgart in southwestern Germany. This one also came from interglacial gravels (either second or third) containing extinct Pleistocene fauna such as *Elephas antiquus* and Merk's rhinoceros. The skull and face are well preserved and allow for clear identification of their qualities. Its forehead is moderately recessive behind strong supraorbital ridges. The occipital region is less angular than that of Pekin man; it has a very slight occipital ridge, and the mastoids are more sharply developed. The cranial capacity of 1,100 cc is at the lower range for modern man. The face is relatively small and the over-all dental configuration human. It is the skull of a *Homo sapiens*.

Two more recently discovered pre-Mousterian *Homo sapiens* skull fragments of third interglacial age have been found at Quinzano near Verona, in Italy (1938), and in a cave at Fontéchevade, in southern France (1947).

These recent finds clarify the status of earlier discovered Neandertaloids at Weimar (1925) and Krapina, in Croatia (1901). Both were recognized as second interglacial and as ancestral to the "true Neandertals." Now we can see them as early European *Homo sapiens*.

The gist of all this, according to the most recent reasoning from the facts, is that out of the generalized late Pliocene stock of hominids that produced *Australopithecus* and the Java-Pekin group of pithecanthropine human beings, there had evolved and entered Europe, shortly after the advent of the Ice Age, true man, the pre-Mousterian Neandertal of the same species (but different in variety) as modern man.

Mousterian Neandertals of the later phase of the Ice Age have long been recognized as men of the genus *Homo*. But under the sway of Huxley's ape-anthropoid hypothesis of human origins, they were viewed as a definitely more primitive, sub-*sapiens* relative of modern man, who was believed

⁷ G. M. Morant, "The Form of the Swanscombe Skull" (*Journal of the Royal Anthropological Institute*, Vol. 68, 1938), pp. 67-97; K. P. Oakley, "Swanscombe Man" (*Proceedings of the Geologists' Association*, Vol. 63, 1952), pp. 271-300; reprinted in the *Yearbook of Physical Anthropology*, 1952, pp. 40-70.

to have shaped up somewhere outside of Europe while getting ready to drive the Neandertals from the Continental scene.

The discovery of the pre-Mousterians and the australopithecines put things in a clearer light (with the help of the removal of the Piltdown paradox). Mousterian Neandertals are not more primitive lineal predecessors of modern man. They *are* modern men (in the sense of being *Homo sapiens*), who in glacial isolation genetically underwent racial divergence in the general direction of gerontomorphism and acquired the superficial visage and contours of a refined gorilla.⁸ The "Classic," "Later," or "Mousterian" Neandertal is an offshoot from the *Homo sapiens* trunk, who exaggerated some incipient features of the Early Pleistocene Neandertals, such as heavy brow ridges, angular occiput, great facial height, and mild prognathism.

The more distinctive skeletal features of the Mousterian Neandertals are specifically:

1. Long, low, wide, and capacious 1,300 to 1,600 cc cranium
2. Cranial base acutely oriented upward with tilted foramen magnum
3. Bun-shaped or angular occipital profile
4. Large facial area
5. Semicircular supraorbital ridges fused above the nose and with the temporal regions
6. Convex curvature of the upper jaws, fusing directly with the cheek bones without forming a suborbital depression (canine fossa)
7. Short, massive spinal column
8. Long, vertical dorsal spines on the cervical vertebrae
9. Limited forward curvature of the cervical and lumbar areas of the spine
10. Heavy short upper arm (humerus) with a massive head
11. Pronounced curvature of the radius (bow bone in the forearm)
12. Broad, flattened ilia in the pelvis
13. Highly curved thighbone of massive structure
14. Short shinbones
15. Short forearm relative to upper arm
16. Leg very short in proportion to thigh⁹

In appearance the Neandertal was a short, massive-chested, round-shouldered, forward-stooping, powerfully armed, bull-necked, beetle-browed,

⁸ F. C. Howell, "Pleistocene Glacial Ecology and the Evolution of 'Classical Neandertal' Man" (*Southwestern Journal of Anthropology*, Vol. 8, 1952), pp. 377-410; reprinted in the *Yearbook of Physical Anthropology*, 1952, pp. 71-104; Le Gros Clark, *The Fossil Evidence for the Evolutionary Origin of Man*, pp. 71-74; and "The Place of Neanderthal Man in Human Evolution" (*American Journal of Physical Anthropology*, Vol. 9, 1951), pp. 379ff.

⁹ Modified from Howell, "Glacial Ecology, etc.," p. 384.

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broad-nosed, flat-headed character, who would, as Professor Howells says, "go to the foot of any posture class in the nation, but he would, notwithstanding, be a dangerous person to face in any wrestling match."¹⁰

To round out the roll, it should be mentioned that certain fossils that have been found in Rhodesia (Broken Hill or Rhodesian man) and on the Solo River in Java have occasioned considerable interest among the specialists for their exaggerated cranial features, but they may or may not be Neandertals. Until more of them are found, their place in the scheme of things must remain open.

HOMO SAPIENS

Finally we come to the closing stanza of the evolutionary epic as it is written to date. The long process of evolutionary differentiation, working with natural selection and toward successful adaptations, has within the last one hundred thousand years produced modern man.

Neandertal man failed in adaptive competition; he developed some evolutionary specializations, probably in his response to glacial living, and got himself out on a limb that was chopped off.

Twenty thousand or more years ago, at the approximate apex of the fourth glaciation, *Homo sapiens*, in the form of Cro-Magnon man (Fig. 5-6), took over in Europe. Somewhere outside of southwestern Europe *Homo sapiens* had been finishing off the process of evolutionary change that was to bring him up from the kind of man represented by the first and second interglacial pre-Mousterian Neandertals to his present state of development. Not enough archaeological digging has been done in late Pleistocene sites outside of Europe to enable us to fill in the details of the changes with empirical evidence. Nevertheless, in 1949 and 1951, Carleton Coon and his associates dug out an absolutely modern skull from deep down in Hutu Cave in Iran from levels that preliminary geologic identification set as prior to the fourth glacial period. Coon provisionally claims an antiquity of 75,000 to 100,000 years for this individual. If this is substantiated, we shall have additional confirmation of the divergence of the Neandertal strain of humanity in a localized area while the main stem was pushing upward elsewhere.

The work of Alice Garrod and Theodore McCown in Palestine in the late 1920s and early 1930s has also done much to fill in our knowledge of what was happening outside of Europe at the end of the glacial epoch. On Mt. Carmel near the Sea of Galilee are two caves which yielded Early and Middle Mousterian cultural inventories in association with several dozen human skeletons, or rather parts of skeletons. The animal bones in

¹⁰ W. W. Howells, *Mankind So Far*, p. 168.

the lower levels of the cave are those of creatures which prefer a temperate climate; those of the higher levels are associated with a damper and cooler climate. Both these sets of facts indicate occupation of the caves through the third interglacial into the fourth glacial epoch.

The remarkable aspect of the Mt. Carmel population is its variability. From the lower levels of the Tabun cave came a girl who is similar to the Swanscombe-Steinheim type of pre-Mousterian *Homo sapiens*. In the upper levels of the cave were genuine *Homo sapiens* and others with mixed Mousterian, Neandertal, and regular *Homo sapiens* traits. A variety of hypotheses may be applied to the Mt. Carmel people, but the one that fits our general theory best is that in the Holy Land the evolution of *Homo sapiens* from the generalized pre-Mousterian form to the modern type was taking place, and (1) either the genetic-environmental forces that were so strong as to produce *Homo neandertalensis* in Europe were also at work in the eastern Mediterranean in attenuated degree (resulting in some Mousterian qualities in a predominantly non-Mousterian population), or (2) miscegenation fused some wandering Mousterian Neandertals from southeastern Europe with the *Homo sapiens* of Galilee.

The classical anthropological image of early *Homo sapiens*, however, is that of the Old Man of Cro-Magnon and his associates—the cave dwellers of the Upper Old Stone Age in France and Spain in the later phases of the fourth glaciation. This was the time and place of a major racial displacement that coincided with the invasions of North America by the distant *Homo sapiens* relatives of Cro-Magnon man who were pushing eastward from Siberia.

We have already noted the evidence for primitive *Homo sapiens* types in Europe in second interglacial times and how the Neandertals probably evolved from them. It is quite possible that small populations of isolated tribes moving in the direction of modern *Homo sapiens* remained in Europe during the long period of Neandertal dominance. If so, they must have been submerged minorities who kept pretty much to themselves, until at last the great explosion of Cro-Magnon and related *Homo sapiens* erupted into Europe. For it seems quite clear that to the south of Europe modern man had first come into his own and then made his way north and westward as well as east and southward into the Americas. In Europe the Neandertals were soon absorbed into the populations of the newcomers or succumbed to war or pestilence to disappear from the face of the earth, leaving only one genus and one species of hominids to carry on the great experiment in living forms.

In addition to Coon's discoveries in Iran, numerous finds of Late Pleistocene fossils of *Homo sapiens* have been found in the upper caves of Chou Kou Tien, in Java, in Central and South Africa, and in Australia. In this introductory view of human development it is not necessary to

examine them in detail. The serious student whose curiosity urges him to read further may find them ably discussed in the writings of Hooton and Keith.¹¹

If one is familiar with the skeletal characteristics of modern longheaded Europeans, not much need be said about the morphology of Cro-Magnon man and his European cognates such as the Grimaldi, Chancelade, Brünn, and Predmost men. They all had attained the same degree of uprightness of posture as we. Their hand, arm, foot, and leg structure is identical with ours. Their pelves, shoulder blades, and skulls had all achieved the same modifications to upright position as ours. They had gained in range of stature over previous forms. Above all, they had copious brains of modern size and quality (Cro-Magnon brains averaged even larger than those of modern Europeans) encased in round-contoured craniums with smooth, high foreheads, broad parietals, and full occipital regions. As a special racial feature the Cro-Magnons exhibit rectangular eye sockets that are quite broad for their height, and high cheekbones (malar) above the characteristic *Homo sapiens* suborbital pit in which is set the canine fossa. In old age, the men could be sunken cheeked—a distinctly human capacity. Their cultural achievements inspire our enthusiastic respect, earning for them the sobriquet of “Paleolithic Greeks.”

As distinctive racial varieties, the Upper Paleolithic *Homo sapiens* have disappeared into the contemporary populations of Europe. They are gone as a type, but their genes are undoubtedly still among us.

The Piltdown Impostor: Obituary of a Magnificent Fraud. From 1912 to 1953 an impossible Englishman stole a leading role in the pageant of fossil men. His presence on the stage created all manner of embarrassing discomfiture to the anthropological scientists who were struggling to write the script of human history. The jarring anomalies of his character did not fit with the main themes as the facts seemed to indicate they should be drawn. Yet he came with impressive credentials, backed by the most impeccable British authorities, and it seemed that a place had to be found for him. His presence was an embarrassing contretemps.

His credentials indicated a venerable Early Pleistocene antiquity. His cranium was that of a thoroughly modern *Homo sapiens*, except for the thickness of the bone. But his jaw was disconcertingly apelike. All other known fossils of the Lower Ice Age had small, primitive brains. How then could this creature, who lived so far from the seedbeds of humanity, have leaped to mental eminence so early?—especially, while retaining a jaw that more properly belonged to an ape? True, his teeth appeared to be human. But then?

¹¹ E. A. Hooton, *Up from the Ape* (rev. ed.), pp. 348–405; A. Keith, *New Discoveries Relating to the Antiquity of Man*.

For the most part, the French and German paleontologists never did accept his validity. The American anatomist G. S. Miller, after a painstaking comparison of the Piltdown jaw with casts of all the jaws of chimpanzees in the United States National Museum, demonstrated the Piltdown jaw to be chimpanzee, but different enough to suggest a new fossil species of chimp.¹² For Miller and many others there was no Piltdown man. But the British, with a fervor tinged with national pride, pushed the case for Piltdown, while in this country the great prestige of Henry Fairfield Osborn and Hooton lent weight to his validity. Hooton emphasized the Piltdown finds as demonstration of disharmony in evolutionary development.¹³ The principle of uneven rates of bodily evolution is sound, but the Piltdown specimen proved to be no example of it. W. W. Howells, although he accepted the validity of the Piltdown fossils, expressed the uncomfortable sense of annoyance with its incongruity that bothered most anthropologists, when he wrote in 1944, "Piltdown . . . gets a genus all by himself because of his jaw. Anyone who can think of something better to do with him will be doing science a service; we have just about given him up."¹⁴

Franz Weidenreich, in writing on Peking man, unequivocally stated that science should give up Piltdown man as a chimera, an artificially produced, unreal creature of the imagination, that should be erased from the list of human fossils.¹⁵ The erasure was achieved between 1948 and 1953 by two English anthropologists, J. S. Weiner and Kenneth Oakley. Science strives always to be self-correcting, and at last the technical means had been devised to dispose of the Piltdown impostor once and for all.

New methods of chemical analysis of the fluorine, nitrogen, and organic carbon content of bones made it possible to establish that the Piltdown skull bones, although fossilized, were much younger than the extinct fossil mammals with which they were purportedly found. Drillings in the jaw and teeth to obtain materials for chemical analysis showed that the red stain on the Piltdown materials was superficial and artificial. It did not permeate the bone, as it would a true fossil. Microscopic examination then showed that the human appearance of the teeth had been achieved by the aid of a file or other abrasive. The whole thing was a diabolically clever fraud.¹⁶

¹² G. S. Miller, "The Jaw of Piltdown Man" (*Smithsonian Miscellaneous Collections*, Vol. 65, 1915), pp. 1-31.

¹³ Hooton, *op. cit.*, pp. 306-311.

¹⁴ Howells, *Mankind So Far*, p. 181.

¹⁵ F. Weidenreich, "The Skull of *Sinanthropus Pekinensis*" (*Paleontologia Sinica*, n.s.D, No. 10, 1943), p. 210.

¹⁶ Weiner has recapitulated the entire intriguing story from its inception to the final unmasking in a fascinating account, *The Piltdown Forgery*. He does not say who was guilty of the forgery, but sets the circumstantial web in clear terms.

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The jarring presence of Piltdown man need disturb us no more. He has been committed to the rogue's gallery of master confidence men and banished forever from the honorable roll of distinguished human ancestors.

SUMMARY

The elimination of the Piltdown "fossil," with its anatomical peculiarities that were so hard to reconcile with other fossil finds, greatly clarifies the picture of the development of the hominids. The basic *Pithecanthropus* forms from Southeast Asia and the more developed related fossils from China show us what the essential ancestors of modern man were like structurally. New evidence, strengthening the authenticity of the Lower Pleistocene existence of Neandertal forms as early *Homo sapiens*, resolves the problem of the relation of the Mousterian Neandertal type to modern forms of men. The Late Pleistocene Neandertals are best understood, not as evolutionarily more primitive than modern man, but rather as a highly specialized local race that developed markedly distinctive traits under extreme conditions of natural selection. They belonged to the same basic stream of humanity as do we.

SELECTED READINGS

- Clark, W. G. Le G.: *The Fossil Evidence for Human Evolution*. A basic modern source.
- Hooton, E. A.: *Up from the Ape* (rev. ed.). Factually sound (omitting Piltdown man) and leavened with delightful humor.
- Howell, F. C.: "Pleistocene Glacial Ecology and the Evolution of 'Classic Neandertal Man'" (*Southwestern Journal of Anthropology*, Vol. 8, 1952), pp. 377-410.
- : "The Place of Neandertal Man in Human Evolution" (*American Journal of Physical Anthropology*, Vol. 9, 1951), pp. 379-416. Two important papers based upon new thinking about Neandertal man, his nature, and his relation to his environment and the rest of mankind.
- Weidenreich, F.: *Apes, Men, and Giants*. An analysis of recent fossil finds in Southeast Asia by the master human paleontologist of the area.
- Weiner, J. S.: *The Piltdown Forgery*. The engrossing story of scientific detective work in the unmasking of a great fraud.

CHAPTER 6. The Dawn of Culture:

The Paleolithic Age

THE SEEDS of cultural capacity are in the great apes, whose potentialities for learning, discovery, and invention have been investigated and carefully described in the works of Köhler, Yerkes, and others. It has been shown that the higher apes possess the capacity to perceive the applicability of observed phenomena to the attainment of desires: invention. They apply sticks as levers and stones as hammers; they fit sticks together to extend their reach; they use them as vaulting poles to extend their jumping capacities—and as jabbing rods to annoy unwary hens about the ape farm. Such activities are only the simplest of their many capacities in the production of new tools and new ideas. Such patterns of behavior are not inborn. They are not instinctive; they are protocultural, the stuff out of which culture develops. The apes fall short of culture because their discoveries and inventions do not persist. The apes lack the ability to produce language (though they do, of course, communicate on an elemental emotional level), and their memory span is so short that their communicable noninstinctive accomplishments flourish only as short-lived fads without the permanence of true culture traits.

It is impossible to say at precisely what time in prehistory protoculture shaded into genuine culture, for the element of permanence is a relative thing, and the transition from the one to the other must have been very gradual. But when the brains of our subhuman ancestors had developed sufficiently to make possible permanent habits of toolmaking and lasting social inventions, the long process of cultural development was truly under way.

Not much will ever be known about the details of even the material culture of the Dawn Men. In the first place, the primitive men of our own times who still make stone tools use wood much more extensively than stone. Wood is easier to work and more adaptable to many of their

purposes. The same probably held true for Dawn Men. But wood is perishable, and only rarely does it survive from the Old Stone Age. Secondly, when Dawn Man fashioned stone tools he was so inexperienced and so inept that his products are now frequently indistinguishable from rocks chipped or scarred by nature. Nevertheless, when we do find artificially or "unnaturally" chipped stones, we can be reasonably sure that they represent the handiwork of man and are products of his culture.

BOUCHER DE PERTHES AND PREHISTORIC ARCHAEOLOGY

To a handsome French collector of customs at Abbeville, on the Somme River, not too far from Paris, goes the accolade for opening new vistas in the history of humanity. Boucher de Perthes lived from 1788 to 1868. As an amateur naturalist endowed with an insightful mind, he puzzled over the quantities of peculiarly shaped flints that were to be found on the higher gravel terraces of the banks of the Somme. Many of these flints had the regular form of an almond, although in size they were bigger than a doubled fist. Others were mere flakes, but they looked as if they had been specially prepared for cutting or scraping. Also interesting was the fact that the gravels which yielded up the flints also embedded fossil bones of many types of animals not then native to France, such as elephants and the rhinoceros. The flints, de Perthes decided to his own satisfaction, were the handicraft of a very ancient people who lived before the flood of Noah. They were antediluvian. As for the flood, were not the gravels water-deposited? The fossil bones were those of the multitudes of beasts who were not invited by Noah to ride out the debacle on the ark. The immediate results of de Perthes' work and his interpretation of it were ridicule and excoriation. In due time, however, a distinguished committee of British geologists and paleontologists crossed the Channel, carefully examined the site of Abbeville, and solemnly pronounced the authenticity of de Perthes' discovery and the correctness of his claim: that the artifacts were indeed made by men long since vanished from this earth.

A particularly virulent vilifier of de Perthes' good sense had been the contemporary Permanent Secretary of the French Academy, his native country's most august learned body. As for that particular worthy, Marcelin Boule, one of France's great prehistorians has truly written, "Permanent Secretaries may come, and Permanent Secretaries may go, but the name of Boucher de Perthes will shine forever in the firmament of science." A man's enduring luster comes not from the offices he may hold but from his contributions to humanity and knowledge.

What de Perthes had discovered was a human habitation site of Lower Paleolithic antiquity.

From his day, the archaeology of human cultures antedating the classical civilizations was born. Once he had shown the way, site after site was discovered, as Europeans turned their eyes to the soil with new insight.

THE AGES OF PREHISTORY

As discoveries began to accumulate, it was apparent that some of the collections of stone tools were markedly different from others. Geological sophistication was also being refined. Metal tools, some of bronze and others of iron, were being unearthed in various localities as well.

By 1836, the Danish archaeologist C. J. Thomsen was able to arrange the bewildering variety into orderly groups and to demonstrate that there was a time sequence to be inferred from the relative positions of these groups in the ground. The major groups were chipped stone, polished stone, bronze, and iron. The chipped-stone collections came from ancient geological beds, the polished stone from more recent, the bronze from still more recent, and the iron from very recent. Hence, the great ages of prehistoric culture became known as (1) the Paleolithic (Gr. *palaios* old + *lithos* stone) or Old Stone Age, (2) Neolithic (Gr. *neos* new + *lithos* stone) or New Stone Age, (3) Bronze Age, and (4) Iron Age. Subsequent knowledge has proved that for most of the Old World human technological culture developed in this order. Later research added a pre-Paleolithic stage, called the *Eolithic* (Gr. *eos* dawn + *lithos* stone), the Dawn Stone Age, and refined the major ages into subdivisions. Further refinement has also led to agreement on the identification of a transitional stage leading from the Paleolithic to the Neolithic, called the *Mesolithic* (Gr. *mesos* middle + *lithos* stone) or Middle Stone Age. This is also sometimes called the *Miolithic*.

The major sequences of the prehistory of human cultures are, therefore (in order of reverse chronology):

- Iron
- Bronze
- Neolithic
- Mesolithic
- Paleolithic
- Eolithic

Variability in Prehistoric Cultures. Just as there is a great range of local variation in the cultures of contemporary primitive peoples, we must recognize that there was also considerable variation in the cultures that developed within the span of any one of the great prehistoric epochs or ages. Each human culture represents an intimate adjustment to its particular

physical environment, and the possibilities for working out a large diversity of customs are clearly evident. It is necessary for us to get away from the temptation to think of the men of the Old Stone Age as all living alike just because their stone tools happen to be quite similar over large areas of the world. Indeed, even as far as their tools go, there is a good deal more local variability in the patterns of artifacts than it is possible to specify in an introductory book. With this warning in mind, let us look at the general features of prehistoric culture.

THE DAWN STONE AGE

The men of the Dawn Stone Age lived in small groups as simple collectors and gatherers of food. From what we have seen of very primitive societies today, and from what we know of the habits of other living primates, each group tended to confine its activities to a fairly limited geographic area. Its major diet was undoubtedly made up of berries, nuts, fruits, roots, and a selection of insects and worms.¹ Whether they hunted small game and birds, or lived as carrions off the flesh of fallen carcasses of larger animals poses a question for which we have no answer. Man's primate relatives are all vegetarians, but somewhere along the line human beings took up meat eating. There is absolute evidence that paleolithic men were heavy meat eaters. And there is the probable fact that the australopithecines dieted on baboons and oxen. So it is most likely that Dawn Stone Age men had already revolutionized the old food habits of the primates to become omnivorous. Such an achievement, of course, widened his range of potential habitat and greatly increased his survival potential. He could cope with a wider variety of living areas. Most important, he did not have to restrict himself to heavily forested territories and could gradually press forward into temperate regions away from the tropical girdle of the earth.

The sole remnants of Eolithic culture today are found in the so-called *eoliths*. An eolith is a stone that has been only slightly worked by man. In fact, it is so slightly worked that it is often difficult to determine with any degree of certainty whether or not it has been worked at all. What do we mean by "worked"? If a man applies his energies to change the shape of a natural object so as to increase its effectiveness for whatever use he wants to put it, he has "worked" it. The natural object then becomes an *artifact*. Note the similar derivation of the words *artificial* and *artisan*. There is no doubt that early man put stones to use without chipping them, just as the chimpanzee does, or as anyone may do to pound a stake, crack a nut, or drive off an inquisitive cow at a picnic. Such stones,

¹ See Chap. 11.

although temporarily used as tools, are, nevertheless, not eoliths. The hallmark of the eolith is that it has been purposefully worked to improve its effectiveness. An eolith might with equal appropriateness be called a *teleolith* (Gr. *telos*, *teleos* end, purpose + *lithos* stone).

When the only stone materials a people has to work with are pebbles of igneous or metamorphic rock, the identification of eoliths becomes much more difficult than when they are able to use flint. Yet in the view of a leading American authority, Prof. Hallam Movius, the crudely worked, round pebbles found at the site of St. Amaud in Algeria are definitely eoliths and the oldest implements found in the Old World.²

The evident usefulness of cutting and scraping instruments led to the invention of a different type of eolith that is much easier to identify. Natural hammerstones can be found ready to hand in great profusion in most places. It is otherwise, however, with stones that must have a sharp, lasting working edge. Flaked flint has just this quality. Because of its nature, flint sometimes flakes under natural conditions, such as earth movements, glacial action, and grinding among the rolling rocks on the bed of a fast-flowing stream. By such means as these, so-called "natural eoliths" have been produced without being touched by the hand of man. Such stones may have given men the first thought that they could convert flint into useful tools. Or the workman, using a flint nodule as a hammerstone, might have accidentally broken off flakes with sharp edges. However it may have been, natural eoliths were not good enough, and long before the time of Java and Pekin men, their predecessors were struggling to shape flint nodules and flakes into tools and weapons.

Rhythm holds an intense satisfaction for man. In the production of eoliths this became manifest in a regular tendency to strike blows that retouched the edge of a cutting flake along one side of the flake only, or else alternating on opposite sides of the edge. The early workman's percussion strokes did not fall at random. In nature-made flints they do.

The early eolithic flints rarely have any regular and consistent shape; they were simply knocked off a larger block of flint until one of suitable size and shape for the purpose in mind was produced. Then this was possibly carried around, resharpened a time or two as its edge was blunted, and then discarded. It is unlikely that Eolithic man carried a kit of eoliths about with him.

On the other hand, it is most probable that he and his women had a sharp-pointed stick, or dibble, constantly to hand. African Bushmen and Australians, who are the closest contemporary counterparts, culturewise, always do. For the dibble is a truly basic artifact. It serves as root digger

² H. L. Movius, Jr., "Old World Prehistory: Paleolithic" in A. L. Kroeber (ed.), *Anthropology Today*, p. 180.

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and grubber, as spear or club, and as walking staff. If we could only know the facts, the chances are that we would find it to be man's first tool. Certainly, the popular image of Dawn Man toting a burly knobbed club is nonsense. Such weapons are too heavy and too limited in the uses to which they can be put to have made it worth the effort for a mobile, poorly fed band of early primitives to be burdened with them.

The Dawn Men were not by habit cave dwellers. Eolithic sites are in the open. Their homes were in all probability simple wind screens or even nests. Whether they had tamed fire for their purposes is as yet uncertain. There is evidence that at least some of them had.

The time of the emergence of Eolithic cultures definitely falls in the early stages of the Pleistocene era. There is a good deal of evidence from eastern England, however, which supports the belief that Eolithic tool-makers were at work in that part of the world in pre-Pleistocene, or late Pliocene times. The wide distribution of early Paleolithic cultures throughout Africa, Europe, and Asia argues strongly that Eolithic men were separately experimenting with stock and stone in all parts of the Old World at least a million years ago.

THE OLD STONE AGE

A paleolith differs from an eolith only in degree of refinement. Whereas it may be difficult to tell whether an eolith was truly shaped by man or not, a paleolith has a clear-cut form. It results from generation upon generation of accumulated experience in knocking flakes off pieces of flint (or sometimes, where flint is not available, other kinds of rocks). The prehistoric artisan had at last learned just how to hold his piece of flint, just how forceful a blow to deliver at precisely what angle, in order to remove approximately the right-sized piece from the desired spot. This is really quite an achievement, as anyone may readily prove to his own satisfaction, if he will dig out a piece of fresh flint and try it.

Paleoliths, therefore, have standardized forms; they are fashioned according to a traditional pattern. Fundamentally, the tools of Old Stone Age cultures in the Old World fall into three major types: (1) core bifaces, (2) choppers, and (3) flakes.

Core bifaces are made of the remaining heart of a nodule of flint after surface flakes have been removed to whittle it into shape. This leaves the core. They are called *biface* because they have a greater width than thickness and taper down to thin edges around the circumference. Thus two sides, or faces, are found.

There is no evidence that these implements were ever fastened to a handle, or hafted, in Old Stone Age times. They must have been held in the fist. Although they could have been used for prying purposes and for

crude cutting, they seem to be more fitting for the delivery of smashing blows. Hence, they are commonly called *hand axes*. And, since they were first discovered in great numbers in France, anthropologists commonly use the French term, *coup de poing* (blow of the fist) when they refer to them.

The chopper is similar to the hand ax in its relative size. It differs mainly in that it is shaped down to a sharp edge along one dimension only. Most choppers are made of heavy flakes, but sometimes of cores.

Flake implements are produced in a rich variety of forms; their common feature is their origin in separation from an original nodule or core of flint. This in turn means that the plane of the flake which separated from the core is a smooth surface. Flake tools tend to be relatively small compared to hand axes and choppers. They are also thin and are so slivered off that a sharp cutting edge is obtained.

In different areas of the Old World there were marked preferences for one type of tool over the others. In Europe, Africa, the Middle East, Southwest and Central Asia, and India, the preference was for core bifaces and flake tools throughout the Old Stone Age. In Southeast Asia bifaces are absent and choppers predominate. Thus, there were two major geographically identified traditions of technological culture. The Western, core-flake tradition combined several great subtraditions in various degrees.

The core-biface tradition was notably uniform in the standardized nature of the hand axes it produced. *Coups de poing* of comparable stages of development are almost identical, whether found in Europe, Africa, or western Asia.

Specialized types of flakes show more variability in their distribution. Even so, flakes reveal the existence of two major subtraditions in flake-tool production: the *simple* as against the *faceted* flake. The simple flake is one that has been removed from the nodule of flint by striking a blow against the natural outer surface of the nodule. In the case of the faceted flake, on the other hand, a good deal of preliminary flaking on the nodule had to take place in preparation for removal of the flake that was to be used as a tool. The smooth outer surface of the nodule was battered away with a series of blows directed straight at the center of the core, with the result that the surface of the nodule had its appearance changed from one somewhat like that of a potato to one rather more like the surface of a tortoise shell. When this task was completed the worker would get ready to remove the flake from the core.

How he did it identifies two separate subtraditions within the faceted flake tradition. If he chose a ridge already formed between the areas from which two surface preparation flakes had been removed and then used this as the point at which to deliver the main blow which would shatter the large flake from the nodule, he produced a Mousterian type of faceted flake. If, however, he took one more preparatory step to get ready for the

separation of his flake tool, he produced a Levallois type of faceted flake. This step involved the removal of a flake from one end of the nodule at a right angle (roughly) to the long axis of the nodule. In terms of your own experience, think of the way in which you knock off one end of a soft-boiled egg with a sharp blow of your table knife. The end of the egg becomes flat. Likewise, the end of the nodule. This flat plane forms the Levalloisian prepared striking platform, or facet. Now the artisan was ready for his final flourish. With a smart blow directed at a precise angle toward a point near the outer edge of his striking platform, he obtained a neat flake with a flat butt.

What does this mean for an understanding of human prehistory?

In the Eolithic stage all flake tools were of the simple type. In the Lower Paleolithic they were both simple and faceted, and if faceted, the kind of faceting varied by local culture. An important way of identifying local cultures is to calculate the percentage frequencies of core biface and the different types of flakes in the local tool assemblage for a given stratum at each specific archaeological site.

Stratigraphy and the Lower Paleolithic in Europe. Prehistoric sites may be stratified or unstratified, just as a layer cake is stratified and an angel-food cake is not. In a stratified site there are distinguishable levels of soil that were laid down under different climatic or living conditions. A habitation site may have distinct layers produced by a heavy presence of wood ash or other materials—products of human activity. Otherwise the distinctions are caused by changes in moisture, by wind action, glacial action, natural plant life, earth pressures, volcanic action, etc. Subject to a variety of special circumstances that will not be discussed here, the bottom layer of a deposit is the oldest, and the topmost layer is the most recent. The underlying layers are progressively older in sequential order. Stratigraphy provides us with a relative chronology, or time scale.

The sequences of glaciation, as revealed in glacial moraines and out-washes outside the limits of farthest glacial advances, also provide the means to large-scale, relative chronologies for the Pleistocene in many parts of the world.

In western Europe, to which we shall limit our attention for the time being, the Eolithic is associated with geological deposits of Early Pleistocene antiquity. The most primitive hand axes and simple flake tools of the first part of the Lower Paleolithic are located in the first interglacial deposits. The tool complex is called the *Abbevillian* (formerly *Chellean*).

By second interglacial times the techniques for making core-biface hand axes had become much improved, and the finished shape of hand axes much more refined and standardized (Fig. 6-2). At the same time, faceted Levalloisian flakes were introduced. The second interglacial tool complex

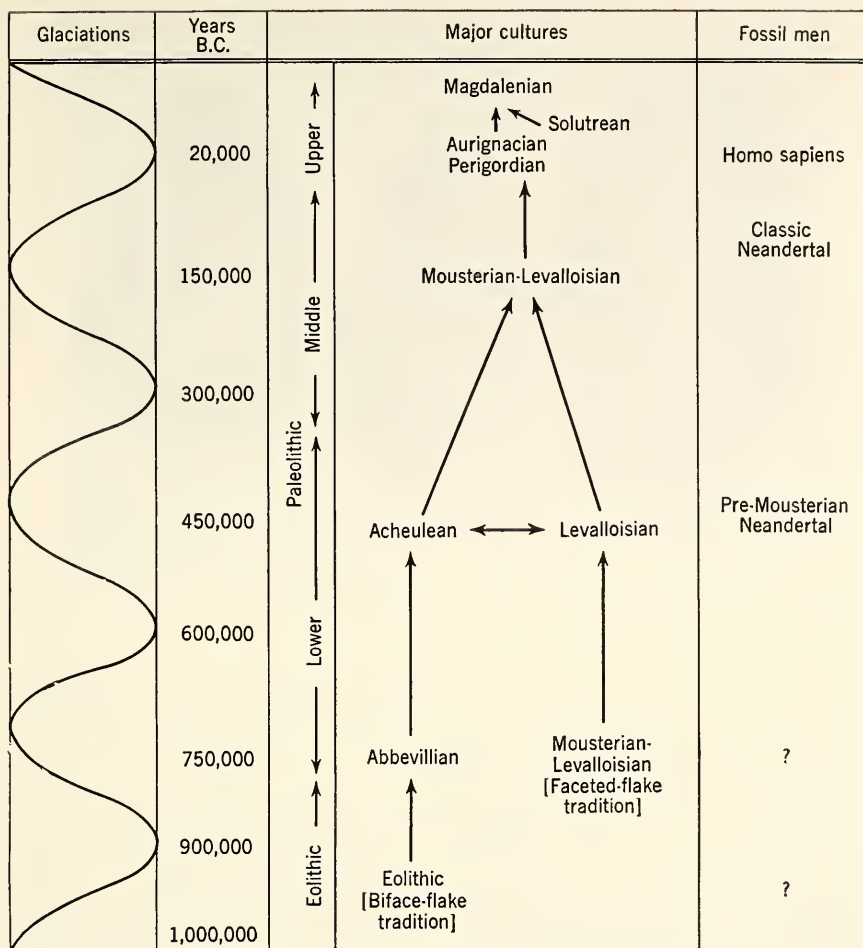


Fig. 6-1. Major Paleolithic culture sequences of western Europe.

of Europe is called the *Acheulean-Levalloisian*. Both the hand axes and the flake tools are more efficient implements than were those of the earlier Abbevillian. The Abbevillian and Acheulean-Levalloisian complexes together constitute the Lower Paleolithic, which extended from first interglacial through second interglacial times, or approximately from 750,000 years ago to 450,000.

The Middle Paleolithic falls within the third glacial and third interglacial periods, extending on into the fourth glacial, but terminating rather abruptly during the climax of the fourth glaciation. The European Middle Paleolithic is characterized by the Mousterian-Levalloisian complex, in which the hand axes became much reduced in size and more delicately

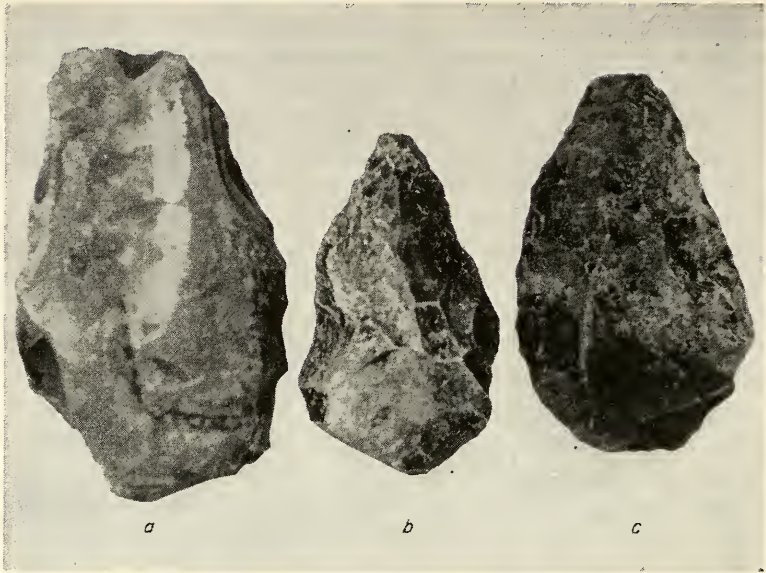


Fig. 6-2. Lower Paleolithic coup de poing: (a) Chellean. (b and c) Acheulean. (Museum of Anthropology, University of Minnesota.)

formed, or, as in many Mousterian sites, altogether absent. The Levalloisian flakes show more clearly differentiated varieties of style in form than was the case in the Lower Paleolithic epoch.

Intercontinental Distribution of the Western Biface-flake Tradition. The tradition we have just been describing is labeled "Western" and is given French place names only because this phase of prehistoric archaeology first developed in France. It *does not* mean that western Europe was the original center of development for these cultural advances. Europe is on the edge of things, geographically speaking. If there was any region which took priority in instituting Lower Paleolithic innovations, it is most likely to have been the Middle East, which lies at the juncture of Europe, Africa, and Asia. One thing is clear. Although toolmaking undoubtedly was independently developed in many places, there was a good deal of borrowing of ideas on how to do it among the bands of primitive hominids who roved about that part of the world in Early and Middle Pleistocene times.

Complexes of the Abbevillian and Acheulean-Mousterian-Levalloisian types of tools are found all over Africa, Southwest Asia, and India, and in the same stratigraphic and chronological orders as in Europe. The great Western artifact tradition of the Lower and Middle Paleolithic was so stable that it endured for a full three-quarters of a million years over thousands of miles of country.

The Lower Paleolithic in Southeast Asia. Through the long millennia of the Stone Age, Southeast Asia, beyond the eastern borders of India and

including China, went its independent way in the development of Lower Paleolithic culture. The biface-flake tradition apparently did not extend its sway into this part of the world. No Lower Pleistocene artifacts have as yet been discovered in Southeast Asia, although, as we know, the *pithecanthropes* who were present then must have been fully capable of toolmaking. From second interglacial times up, however, a fair number of artifact-yielding sites have been found in wide distribution.

On the Irrawaddy River in the interior of Burma a well-known locality has yielded a Middle Pleistocene culture known as the *Anyathian*. The Anyathian complex centers around a single-edged core artifact fashioned from petrified wood and silicon rocks. It also includes large chopper flakes.

In China the Chou Kou Tien site, home of Pekin man, has yielded a sizable assemblage of pebble and quartz choppers and quartz flake scrapers.

In Java there are no artifacts directly associated with *Pithecanthropus*, but the site of Patjitan in south-central Java has yielded a prolific number of artifacts of the chopper and adze types patterned along the same lines as those found on the mainland.

It may therefore be concluded that in Southeast Asia there was a spread of ideas on toolmaking among the widely scattered local groups, just as there was in the wider sphere of western Asia, Africa, and Europe. But the ideas were somewhat different and only in northeastern India did the two streams come together and mix to any extent.

Life in Lower Old Stone Age Times. On the whole, living conditions appear not to have changed too greatly from Eolithic to Middle Paleolithic times, even though the span stretched over the better part of a million years. Changes, as they occurred, took place so imperceptibly as to have been unnoticeable over many generations. But the cumulative effect was noticeable. A major one has already been noted. Man added hunting of game to the gathering of wild vegetables and fruits. His food getting surely became a more exciting activity and his diet more extensive. He spent a good deal more time making things. This was possible because he could get his calories in bigger bundles, and so he was able to enjoy the rudiments of creative satisfaction.

Somewhere and sometime in the Lower Paleolithic he gained regular mastery over fire. Out of control it could still terrorize him, but under control it became the center of his home life, the symbol of in-group security through all later ages, as the emotional tones of "hearth and home" still connote for us.

When we say that living conditions did not change too greatly throughout the Lower Paleolithic, this refers only to the broader cultural patterns. Climatic fluctuation from interglacial to glacial maxima was tremendous. In the times of the Eolithic and pre-Chellean cultures of the Late Pliocene, the climate of Europe and England was gentle and warm, much more so than is the case today. Warm-water corals and mollusks lived in the North

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Sea. The now extinct southern mammoth and *Elephas antiquus* roamed the prairies and softwood forests of Europe. There were other large mammals, such as the hippopotamus, Etruscan rhinoceros, and the saber-toothed tiger; the primitive and diminutive Steno's horse made his precarious way among these larger brutes. So did wild cattle and deer. Eolithic man lived in the open, contesting with these creatures for watering places—and existence. He was not then, or in interglacial times, a cave dweller, for man loves sunshine and forsakes it for the gloomy chill of caves only when forced to do so by glacial weather or fear of attack. The camp sites favored by Stone Age man were the sun-warmed banks of water-courses.

In times of the glacial advances the whole face of Europe was changed. Although the glaciers were never extensive enough to smother the entire land surface with ice, they were the result of drastic climatic changes that brought long cold winters and short fleeting summers. In many places man adjusted to the change by making cultural modifications in his modes of living. He retired to caves, warmed himself by fire, and stripped heavy-coated animals of their furs to provide warm covering for himself. Other animals, however, having no culture, could not wait for biological changes. They had to retire to more comfortable climates in Africa and southern Asia. The southern mammoth and the straight-tusked elephant disappeared, to be replaced by the woolly mammoth, the woolly rhinoceros, the monster cave bear, and the hardy reindeer. Their charred and broken bones are found in profusion in the hearths of the Late-Mousterian culture, mute testimony to the prowess and culinary tastes of Neandertal man.

The glacial period began one million years ago, and its remnants are with us still in the polar and Greenland icecaps and in the glaciers of the higher mountains. The four periods of glacial advance alternated with periods of interglacial warmth, such as the present. The glaciations and their interglacial interludes were probably not of equal length, but for convenience we may roughly calculate each period as 150,000 years.

A notable emergence of new life-ways that took shape in the later phases of the Lower Old Stone Age was ritual disposal of the dead. Neandertal man buried his dead, at least some of them. What is more, he interred grave offerings with them. Among contemporary primitives who do this, interment of grave offerings is always an expression of the belief that there is another self which continues beyond the body.³ The belief in immortality dominates all observed primitive societies and is present in all civilized cultures. It is one of the universals in the common denomination of culture. With the growth of man it gradually came into being where it did not exist before. Neandertal man evidently got it under way.

³ See the discussion of *animism* in Chap. 30.

THE UPPER OLD STONE AGE

After the severest cold of the fourth glaciation had begun to wane, the Mousterian Neandertal population of Europe and North Africa was displaced with newcomers who were in every sense modern *Homo sapiens* in physical type. Of these the Cro-Magnons are by far the best known, but there were other varieties as well. The Upper Paleolithic racial revolution was not as drastic as earlier anthropologists once thought it was, since we now recognize Neandertal man as a true hominid. Nevertheless, the racial change in Europe was sufficiently great to be properly looked upon as revolutionary. This eventful racial revolution was accompanied by a far-reaching cultural revolution.

It is a truism that all revolutions retain something of the old order. The cultural revolution of the Upper Paleolithic is no exception. Although the spirit of Upper Paleolithic culture was wholly different from that of the Lower Paleolithic, there was nevertheless a carry-over of basic toolmaking techniques from the one to the other. The method of making the Levalloisian-Mousterian points was continued, but the form of the artifacts was greatly altered in the Upper Paleolithic. Most noticeable is the fact that the hand-ax tradition disappeared altogether in Europe.

In Europe the sequence of Upper Old Stone Age cultures in chronological order (reading from bottom to top) is as follows:

- Magdalenian
- Solutrean
- Aurignacian
- Périgordian

The essential difference in form between the Périgordian points of the first period of the Upper Paleolithic and the Mousterian is in the prevalence of elongated surface flaking. This was a method for making a usable flake tool with a minimum of effort. The typical Audi blade of the opening phases of the Aurignacian culture had not yet attained this quality, but as the Périgordian period went its way, the Audi blade was gradually replaced by the long, narrow, sparsely flaked Châtelperron point (Fig. 6-3c). This in turn gave rise to the very sharp cutting and engraving tool known as the *gravette* (Fig. 6-3b). Neat planing tools, known as *gravers*, or *carinate blades* (Fig. 6-3a) were quite numerous.

In many sites of southern France the Périgordian deposits directly overlie the old Mousterian. In some sites the Périgordian evolves continuously until replaced by the Magdalenian. In others, the Aurignacian is interposed between the Lower and Upper Périgordian. This indicates that the Périgordian and Aurignacian cultural traditions, although closely related, repre-

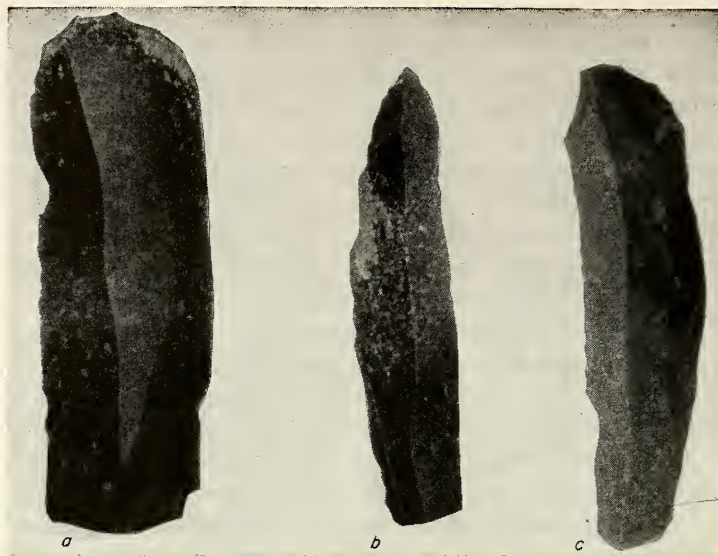


Fig. 6-3. Périgordian Upper Paleolithic flakes: *a*, graver; *b*, gravette; *c*, Châtelperron. (Museum of Anthropology, University of Minnesota.)

sent two locally distinctive cultures that interacted differently in different parts of western Europe. The forms of flint artifacts that distinguish the Aurignacian culture from the Périgordian are indicated in Figure 6-4. The major unique qualities of the technological culture of the Aurignacian are found in the production and use of slender bone javelin points and remarkable artistic representations of living forms.

PÉRIGORDIAN TRADITION

Fifth phase: Tanged and leaflike points; *burins* (awls)

Fourth phase: Gravette points; small-backed blades; *venuses*

Third phase: Backed blades of miscellaneous types

Second phase: Evolved Châtelperron points; blades with inverse retouch

First phase: Basal Périgordian; Châtelperron blades

AURIGNACIAN TRADITION

Fifth phase: Bone points with simple beveled base

Fourth phase: Bone points with biconical cross section

Third phase: Bone points with oval cross section

Second phase: Bone points with diamond-shaped cross section; steep scrapers

First phase: Split-base bone points; steep and tortoise-backed scrapers

Fig. 6-4. Characteristic artifacts of the Périgordian-Aurignacian Upper Paleolithic tradition in Europe. (Modified from Movius.)

The Magdalenian tradition carries on and elaborates the bone-working propensities of the Aurignacians, producing an intriguing series of barbed harpoons out of the bone javelin point. In the Lower Magdalenian, these harpoons were fashioned with a single row of barbs carved out along one side only. In the Upper Magdalenian, the barbs were fashioned to alternate along both sides, and a "swallow-tailed" base was developed to facilitate hafting into the wooden shaft which held it. Magdalenian man also invented the dart thrower, or *atlatl* (the Aztec name by which it is frequently known), thus applying the principle of the lever for greater projectile force (see Fig. 6-5).

The flint artifacts of the Upper Magdalenian became modified in the direction of greater delicacy and the splinterlike sharpness of their cutting points, on the one hand (the emphasis is on refined *gravettes*), to be used in the engraving and carving of art objects, and of planing tools that undoubtedly served to remove the tissue from the underside of skins in preparation of animal hides for robes and clothing. These same planes also could have been used to work down bone and ivory preparatory to final carving and engraving in artistic output.

The Solutrean culture stands in relation to the Aurignacian-Magdalenian sequence as the Aurignacian stands in relation to the Périgordian. That is, in some localities it obtrudes between them in stratigraphy; in others, it does not. The Solutrean culture seems to have had its point of origin in the Danube region of eastern Europe and to have been carried by diverse migrating groups into the west. Where these people settled, we find the Solutrean mixed into the Aurignacian-Magdalenian. It is, of course, pos-



Fig. 6-5. Magdalenian carved mammoth from weighted end of a dart thrower. (Cast. Museum of Anthropology, University of Minnesota.)



Fig. 6-6. Solutrean laurel-leaf point.

sible that Solutrean ways of doing things also spread by borrowing without migration.

The Solutreans had little interest in art, for few remains of the Aurignacian-Magdalenian art tradition are found in Solutrean deposits. Nevertheless, it may be said of Solutrean man that he was a true artist in flint working. At the height of his technique, the Solutrean workman gave form, rhythm, and symmetry to his products beyond the needs of utilitarianism. The best of his willow-leaf and laurel-leaf points (Fig. 6-6) are the results of precocious effort.

Solutrean culture, although it disappeared, did not fail to leave its mark. Its crossing with the Aurignacian produced a hybrid vigor that gave great impetus to the Aurignacian trends which flowered in the Magdalenian epoch.

Upper Old Stone Age Art. It is in the field of art that the accomplishments of the men of the Upper Paleolithic have led to the sobriquet, "Paleolithic Greeks." The aesthetic sensitiveness and technical proficiency of these ancient cave dwellers is truly awe-inspiring. They surpassed many later primitives in ability, while some of their sculpture compares favorably with good modern works. They were versatile, too. Painting, engraving, sculpture, and modeling were familiar media of expression. Furthermore, they were skilled in all fields. Their art began in experimental crudeness and developed steadily to the sure technique of masters. It offers a golden field for the study of developmental processes in art because the sequences in improvement are clearly discernible in archaeological series.

Although they represent different techniques, engraving and painting were closely integrated by the Aurignacian-Magdalenian artists. Their development went hand in hand to produce closely similar forms of expression. It appears that when an engraving was made first, its incised lines were always painted in afterward. And sometimes a wall surface was given a paint wash, after which the engraving was incised. The effect was to set out the engraving in fresh contrast to the painted background.

Lower Aurignacian engravings and paintings were no more than crude stiff outlines. Upper Aurignacian pictures were more accurate representations, and in the Lower and Middle Magdalenian real skill in composition, contour, and the use of polychrome was reached. Some comparative ex-

amples from the four phases of Aurignacian-Magdalenian art are given in Figure 6-7.

Sculpture does not show such a progressive trend, since most of the known examples reveal reasonably good technique, whatever the phase. Mural sculpture was wall engraving developed to produce medallion types of low and high relief. The best work was done, however, in sculpturing in the round on bone, antler, and ivory, in shaping such articles as dagger grips and dart throwers in animal and bird forms (Fig. 6-5). Exotic figurines of little female idols were fashioned in stone and ivory (Figs. 6-10, 6-11, and 6-12). The most famous example of plastic modeling is a family group of a bison bull, cow, and calf from the cavern of Tuc d'Audubert.

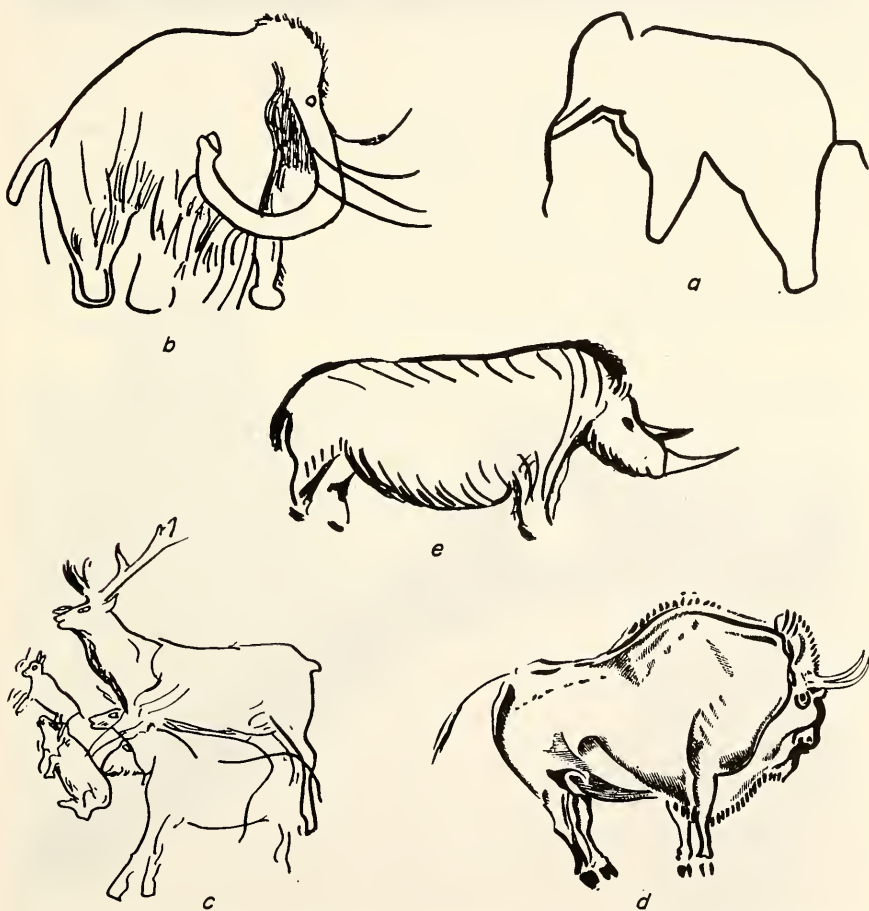


Fig. 6-7. Four phases of Upper Paleolithic art: *a*, phase I, Lower Aurignacian; *b*, *e*, phase II, Upper Aurignacian; *c*, phase III, Early Magdalenian; *d*, phase IV, Middle Magdalenian.

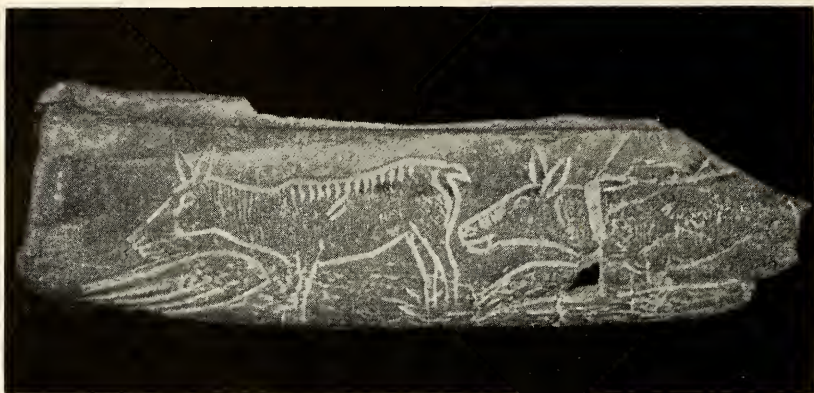


Fig. 6-8. Magdalenian engraving of deer on bone. (Cast. Museum of Anthropology, University of Minnesota.)

Much light is shed on the beliefs and mentality of Upper Paleolithic man by the art that he produced. If ever an art reflected the spirit of its culture, it was this. There has been much argumentative exchange of opinion between utilitarian-minded anthropologists and aesthetically minded "art-for-art's-sakers." Anthropologists have insisted on the magico-religious utilitarianism of the art. Aesthetes have insisted that it manifests the artistic genius of its makers. Both are right, but the anthropologists more so.



Fig. 6-9. Magdalenian *baton de commandement*, or shaft straightener, made of antler and engraved with figures of horses. (Cast. Museum of Anthropology, University of Minnesota.)

Upper Paleolithic art had the gross purpose of filling men's stomachs and maintaining the population by serving as a magical aid in hunting and procreation. But beyond these ends to which his art was but a means, the Upper Paleolithic artist used his art as an end in itself. He produced not merely images but beautiful images. He strove not only to produce magically efficacious representations of the goals of his desires; he also developed artistic skill for the intrinsic pleasure it gave him.⁴

It is likely, however, that magical purposes never left his mind. Especially is this evident in the case of his mural art, which is rarely found where it may easily be viewed. The Upper Paleolithic artist did not adorn the walls of his homesite in the entrance to a cavern. No, his art works are found deep in the earth's bowels, in the dark mysterious caverns where the artist worked by the fitful smoky flare of a stone lamp. There he drew his animals: the woolly mammoth, bison, reindeer, wild cow, bear, woolly rhinoceros, horse, and ibex—most of them animals long since extinct in Europe. And again and again he painted red gashes on their bodies, gashes

⁴ See L. Barnett, "The Epic of Man: Part II. The Dawn of Religion" (*Life*, Dec. 12, 1955), pp. 75-96.



Fig. 6-10. The Venus of Willendorf. A prehistoric fertility statuette from the Aurignacian epoch. (Cast. American Museum of Natural History.)



Fig. 6-11. A highly stylized Upper Paleolithic fertility statuette. (Cast. Museum of Anthropology, University of Minnesota.)



Fig. 6-12. Magdalenian sculpture of a female head in ivory. (Cast. Museum of Anthropology, University of Minnesota.)

dripping with blood. He often showed projectile points piercing their flesh. Sometimes he drew hunting clubs beside the beasts. In Europe he rarely drew actual hunting scenes, but contemporary artists who lived in East Spain to the south of the Pyrenees did (see Fig. 15-20). His paintings were effigies designed to play their part in imitative magic. In one form or another he almost certainly performed mystic rites before his pictures, as do the contemporary Australian aborigines and as the Winnebago Indians of Wisconsin did not so long ago.

Not all magic is aimed to do harm; some of it may be wholly beneficent. This is particularly true of fertility magic, magic that constitutes the main content of fertility cults. Aurignacian men were especially fond of statuettes of pregnant women, of whom the Venus of Willendorf (Fig. 6-10) is the most famous. The parts of her torso that swell with pregnancy are given lavish exaggeration. The face, arms, legs, and feet are ignored.

The artist has composed her with selective interest. The detail of her coiffure and that of the Venus of Brassempouy (Fig. 6-12) show that hairdo had its social (probably cult) significance 10,000 years ago and that the beautician existed as an artisan long before our era.⁵

Females were the more frequent objects of artistic representation, but males as masked dancers were sometimes portrayed.

Upper Paleolithic art may be summed up as vividly realistic, an art of flesh and blood, a functional art that aided in survival, eagerly used by a hunting people living in a glacial age.

THE MESOLITHIC, OR TRANSITIONAL PERIOD

The flourishing Upper Paleolithic cultures reached their zenith in the Middle Magdalenian. Then the fourth glaciation rapidly receded under the warming seasons of a changing climate. The artistic flower of the Magdalenian culture had bloomed and was quickly going to seed. The animals Magdalenian man had known retreated northward year by year as new and modern animals came from the south to replace them. With the new fauna came new races of men from the south and east to overwhelm and absorb the Cro-Magnons and other Upper Paleolithic races of Europe. It was a period of cultural readjustment, known as the *Mesolithic Age* because it stood midway between the Old Stone Age and the New.

The Mesolithic is an age much disparaged in older anthropological writings because the fine art had disappeared, the elegant harpoons of the Magdalenian had become poor staghorn imitations such as the one illustrated in Figure 6-13d. Flints were mostly pygmy microliths. If one looks back only to the glories of the Upper Paleolithic, then the Mesolithic culture seems poor indeed. But if one looks forward from the Mesolithic to the Neolithic, then it will be realized that the Mesolithic was a period of transition and readjustment when profound changes were taking shape.

Where Mesolithic man painted, he did not paint pictures. He was content to daub simple marks on pebbles (Fig. 6-14). A degenerate art, some say. The modern abstractionist in art can, however, without difficulty appreciate what the Mesolithic dauber was about. Mesolithic art was purely intellectual and symbolic. By a gradual process of conventionalization, pictures had become so simplified that a few strokes set a hieroglyph which conveyed the meaning of a picture without actually being a picture. Time was saved, if one understood the conventional meaning of the hieroglyph, because it served the intellectual purposes of magic and communication as well as the finest polychrome. Aesthetics languished, it is true, but the intellect was fertilized, and the germ of one of the greatest of all inventions, writing, was planted.

⁵ See Chap. 14 for a discussion of hair treatment as adornment and status symbolism.



Fig. 6-13. Evolution of the Upper Paleolithic harpoon: *a*, Solutrean bone point; *b*, Magdalenian double-barbed with swallowtail haft; *c* and *d*, Mesolithic staghorn with eye for lashing to haft. (Museum of Anthropology, University of Minnesota.)

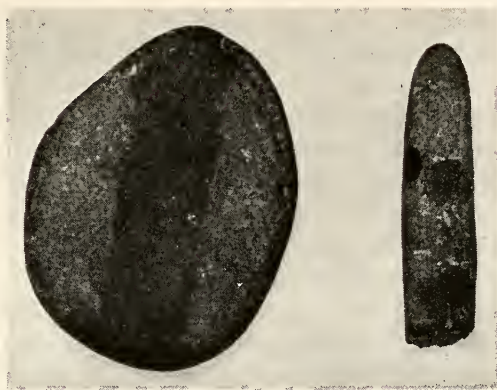
The Mesolithic had different manifestations in different parts of western Europe. The oldest of the Mesolithic cultures is that found at Le Mas d'Azil in south-central France, hence called *Azilian*. The Azilian culture is notable for the painted pebbles and the pinetree-shaped staghorn harpoon with a needle-eye slot in the base to facilitate lashing to the shaft. Flint artifacts are small scrapers and drills (*burin*) of the Magdalenian type, much reduced in scale.

Closely related to the Azilian, indeed, fused with it, but following in time, is the Tardenoisian. This culture is distinguished from the pure Azilian by the prevalence of minute, geometric-shaped, flint flakes (Fig. 6-15) that were glued into slender bones to produce harpoon heads with sharp cutting teeth instead of barbs.

The microlithic pattern probably developed outside of Europe and moved in with the migrations of new local races that came north with the moderating of climate as the Ice Age receded.

In Spain there was a local Mesolithic development known as the *Asturian*, a culture of a people who flourished on shellfish (as attested by the great shell heaps called *middens* by archaeologists). The Asturians re-

Fig. 6-14. Azilian painted pebbles. (Museum of Anthropology, University of Minnesota.)



verted to making their stone tools of chipped pebbles in a way reminiscent of some of the early coliths.

The Azilian, Tardenoisian, and Asturian, along with certain other local cultures in Great Britain, all belong to the earliest phases of the Mesolithic in Europe (ca. 15,000-8000 B.C.).

At the close of this phase of the Mesolithic, North Europe along the Baltic and southern Scandinavia were freed from the frigid grasp of the ice sheet, and descendants of Paleolithic hunters moved in. The dating of their particular cultures is now quite exact, because each year clay deposits from the summer outwash of melting glaciers has left distinct sedimentary bands, or *varves*.

The basic culture of the Baltic Mesolithic is called the *Tanged Point*, because of the basal tail by which its flint points were set in spear shafts. The tanged point and other elongated flint flakes of this culture complex are very much in the tradition of the Aurignacian-Magdalenian technology. Quite new, however, are the digging picks fashioned of antler segments.

The tanged-point Mesolithic culture is not unique to the Baltic region, for it spreads all the way down through western Russia into the region of the Black Sea.

Along with the culture just described, there developed a flint-ax culture of marsh dwellers in the Baltic area, called *Maglemosian*, after the Danish word for "great bog." Innumerable artifacts of wood and bone, well preserved in modern peat deposits, give us a very good idea of the tech-



Fig. 6-15. Tardenoisian Microlithic flints.

nology of these early postglacial men. They made fishhooks and harpoons of bone and axheads of reindeer horn drilled through the middle to take a handle just like a modern ax. They fashioned dugout canoes from solid logs and propelled them with wooden paddles. Nevertheless, flint was still used extensively, and especially for axes that were long and narrow.

After 5000 B.C. the world-wide rise in the level of the seas, which was resulting from the freeing of ice-locked water, caused the North Sea to break through into the fresh-water area of the Baltic. The men of the North became real sea-food relishers. Their camp sites on the low-lying seashores were literally elevated year after year by the millions of mussel shells which they tossed aside as they enjoyed their meals. Minor changes in their tool technology, which are of interest to specialists, took place, but for us the most significant development was the introduction of pottery for cooking.

It was also during the Mesolithic that "man's best friend" first joined the human family. The skeletons of dogs in Mesolithic sites indicate that dogs had become domesticated.⁶ The bow and arrow were also in use.

THE UPPER OLD STONE AGE IN AFRICA AND ASIA

It must always be kept in mind that western Europe is on the edge of things, as far as the Old World land masses are concerned. It is an area that could not become central to the affairs of the world until techniques for overseas travel were highly developed in late historic times, when climatic changes converted much of Africa and the Middle East from verdant lands to searing deserts. Throughout most of the Ice Age the major centers of cultural advance were undoubtedly not in Europe itself.

The Lower Old Stone Age culture traditions were broadly spread across the vast reaches of the Eurasian continent. Culture change was so slow that it is not possible, prior to Mesolithic times, to say just what localities were ahead of the others in making new advances. In Mesopotamia, however, the Mesolithic emerges around 18,000 B.C. In Denmark it does not take shape until slightly before 8000 B.C. In Northwest Asia men were not even present until toward the close of the Upper Pleistocene.

In the last two decades, widespread archaeological sampling has indicated how the core-biface-flake traditions of the Lower Old Stone Age in the West developed almost everywhere in Africa and the Mediterranean regions into Upper Old Stone Age cultures similar to the Aurignacian-Magdalenian. What happened in South Asia and China remains obscure, but here, too, microlithic stone cultures appear just before Neolithic times.

And during the Mesolithic Age, man first made his way into North America as an Upper Old Stone Age hunter and gatherer.

The stage was now set for far-reaching changes.

⁶ See pp. 194-195 on the domestication of dogs.

SUMMARY

The Paleolithic Age was the protracted period of incubus for the basic cultures of mankind. It was a time in which primitive groups lived precariously on the seeds, fruits, and roots, and such flesh of insect, fowl, and beast as nature provided. With meager tools of stone, bone, and wood, the Old Stone Age hunter and gatherer worked upon his environment in an unceasing effort to improve his lot. Consequently, although progress was infinitesimally slow over thousands of years, from the beginning of the Old Stone Age in early Pleistocene times down to its close in Europe, nearly a million years later, consistent refinement of stone artifacts can be seen.

Particularly remarkable is the persistence of clearly demarked cultural traditions in lithic technology over vast areas of the Old World—the core-biface and flake traditions in the West and the chopper tradition in the East. From this, two significant inferences may be drawn: (1) there must have been an extensive network of some kind of communication among early primitive groups (basic ideas were shared); (2) established preferences for certain ways of doing things existed in the earliest of human times and tended even then to eliminate alternative possibilities from any given culture area.

Although the sequences of paleolithic cultures are best known from Europe, European prehistory is only generally characteristic of paleolithic prehistory elsewhere. Even in Europe itself, there was a good deal of local variation on the basic patterns, so that today it is recognized that the details of European, and indeed all of Old World, prehistory are a good deal more complicated than the survey given in this chapter might indicate.

SELECTED READINGS

- Breuil, H.: *Four Hundred Centuries of Cave Art*. A handsomely illustrated compendium of all the major art-yielding cave sites in western Europe.
- Burkitt, M. C.: *The Old Stone Age*. A good general book, although somewhat outdated.
- Childe, V. G.: *Man Makes Himself*, Chap. 4.
- Clark, J. G. D.: *Prehistoric Europe: The Economic Base*.
- Hoebel, E. A., J. D. Jennings, and E. R. Smith, *Readings in Anthropology*, Part II, "Prehistory."
- Movius, H. L., Jr.: "Old World Prehistory: Paleolithic" in A. L. Kroeber (ed.), *Anthropology Today*, pp. 163–192. A concise, technical summary of the state of Old World archaeology today.
- Oakley, K. P.: *Man the Tool-Maker*. A readable summary of the technology of prehistoric man.
- Skira, A., and G. Bataille: *Prehistoric Painting: Lascaux or the Birth of Art*. Beautiful color plates of the "Sistine Chapel of the Ice Age."

CHAPTER 7. The Dawn of Civilization: The Neolithic, Bronze, and Iron Ages

FOR THE BETTER part of a million years man lived with concentration on the central problem of keeping himself alive and producing and rearing his offspring. In the main, his yearly round of activities was not greatly different from that of any other animal. Grubbing and hunting for food, sex life, and child care took up most of his time and effort. Yet two things were different. He learned to talk about what he was doing, and so to think. And he mastered the rudiments of how to make simple tools and how to use fire. Speech, tools, and fire were the great achievements of the Lower Paleolithic. Seven hundred thousand years or more went into this phase of man's development. The process was slow.

Then, in the brief twenty-five thousand years of the Upper Paleolithic his latent potentialities began to reveal themselves. At the end of the period he was still a hunter, but a hunter with varied skills that produced a versatile array of tools and weapons, art that expressed intellectual alertness and precocity of manual execution; all of these together hint a vigorous social life. By the end of the Old Stone Age mankind had completed its long apprenticeship and was ready to launch out on the venture of becoming fully human by exploiting the possibilities of culture in all its ramifications. A new era was opened with the birth of the Neolithic Age.

The key to the Neolithic, or New Stone, Age was the domestication of plants and animals. Once this had been achieved, it was possible for man at one and the same time to stabilize and to increase his food resources,

and to devote vastly increased amounts of energy to activities other than food getting. Larger populations could be maintained in a given area and specialization in activities could be sustained on a wider scale. The Neolithic revolution was a revolution away from the life of the simple food gatherer to the life of the settled farmer. Camps were supplanted by villages. In the Bronze Age the process was completed by the addition of cities: the urban revolution, which so drastically altered the state of man, was at hand.

Along with domestication of plants and animals came writing, the hallmark of civilization, full development of pottery making, the weaving of cloth, the manufacture of boats, and the building of houses; religion burgeoned, and the basic forms of social organization, as we see them among contemporary primitive communities, took shape.

The birthplace of the Neolithic was in the lands lying east of the Mediterranean, about 5000 years B.C. From this center it spread east and west, fanning out into Africa and Europe, where it was adopted and modified by the Mesolithic folk of Denmark around 2500 B.C. The late Pleistocene emigrants from Northeast Asia who had already made their way into North America were Paleolithic hunters. Some three thousand years ago their descendants in the Bolivian highlands and Middle America also mastered the control of plants and animals, and so got an independent Neolithic revolution under way in the Americas.

The details of gardening and herding as basic subsistence techniques and of the development of pottery and writing and other characteristically Neolithic life-habits are discussed in separate chapters in the next section of this book, and so will be passed over here. Some of the features of the Neolithic, however, do call for closer examination at this point.

The Neolithic cultures of the Near East centered on the cultivation of wheat and barley at first. Later but still in the Neolithic, millet, rye, flax, and beans were added. Wheat, barley, rye, and millet are seed-bearing grasses that have been selected from wild forms for the production of large and plentiful seeds—the grains. Dinkel gave rise to a variety of wheat that was popular among many Neolithic farmers and is still grown in some backward areas of Asia Minor. A much more productive wheat was derived from emmer. But the oldest wheat grains that have been found in the Middle East and India are of a variety for which no wild ancestor has been identified, leading us to believe that wheat may have resulted from the crossbreeding of emmer with an \times grass, producing the common variety (*Triticum vulgare*) from which most modern wheats are derivatives.

Both dry farming and flood-water farming in river valleys were used by Neolithic hoe culturists, although dry farming in the hills was probably the earlier form. The preparation of fields for dry farming had to be by the slash and burn, or *milpa*, technique used by so many contempo-

rary primitive gardeners, such as the Maya Indians and the Dyaks of Borneo.¹ Without fertilizing, dry farming exhausts the soils in a few years so that cleared fields must be abandoned and then recovered after they have grown back to wild brush or grasses. This often meant that Neolithic man had to move his villages again and again to new sites.

Irrigation and flood-water farming automatically replenish the soil with minerals brought in by the flowing ground waters. Great Neolithic settlements that did not have to move were thus able to root themselves in the rich soil valleys of the Nile, the Tigris, and Euphrates—justifiably known as the Fertile Crescent. By 3000 B.C., the Nile was a ribbon on which was strung a continuous series of Neolithic villages from the Delta to the First Cataract. Of course, it was in the flood-water valleys that the great metropolises of the subsequent Bronze Age arose on the foundation of the Neolithic garden-village base.

The harvesting tool of Neolithic man was a bone or wood blade set with microliths just like the Tardenoisian harpoon. Archaeological levels in the Middle East below those in which actual grains of wheat are found yield microliths polished with a fine sheen—a sheen produced by the friction of grass or stalks of grain. Later in the Neolithic, curved sickles were developed, but the microlith cutting edge was used until well into the Bronze Age.

An essential in the use of hard-shelled cereals is to break down the kernel, if the cereal is to be used with any degree of ease. In other words, it must be made into flour. A universal artifact of the Neolithic complex is, therefore, the grinding stone. It may be either of the mortar-and-pestle type, which is less common, or of the flat slab and hand-rubber type. In America, this latter combination is called by the Mexican-Spanish names, *metate* and *mano*. In English the term *quern* is used. The resulting meal was then made into dough which was baked directly in hot ashes, on stone slabs, or in stone or clay ovens. The other use was to boil it in water to produce gruel and porridge. Bread became the staff of life only six or seven thousand years ago, but it soon established itself as a mainstay in man's diet.

The domesticated cow, horse, pig, sheep, and dog were nearly as important to the Neolithic farmer as were his basic grain stuffs. The bones of several or all of these creatures in Neolithic sites show that the gardeners were also animal husbandmen. Whether or not there were any non-gardening pastoral tribes in the New Stone Age, the archaeological record has not yet revealed. Aside from their value as meat and hide producers, these domestic beasts also made their contribution to the improvement of farming as givers of fertilizers. Once this had been discovered and ap-

¹ Described on p. 193.

plied, dry farming could be continued on any plot for longer periods with obvious advantages.

Sheep eventually were bred to produce wool, for although wild and early Neolithic sheep had hair with only rudimentary wool, controlled selection in time produced the woolly lines that could be sheared for their spinnable fibers. Prior to this accomplishment, flax provided the stuff for thread and most Neolithic woven goods were of linen.

HOUSE TYPES

Temporary houses had been built in Mesolithic times, so we cannot say that Neolithic man was the first architect. For him, however, housing did become a major cultural achievement. In the Middle East, where mud and adobe structures were raised, such dwellings probably served well in their times, but they have so deteriorated through the years that not much can be said of them.

In Europe, dwellings of the wattle-and-mud type (see p. 206) have left more enduring remains. In the Danube valley in particular their form is very revealing. Joint family long houses of the Iroquois, Jivaro, and Indonesian type (see pp. 213–214), as great as 120 feet long and 25 feet wide, and with gabled roofs, were common in the Lower Neolithic. This means that clanlike lineages had developed as the dominant form of social organization and that the unilateral principle had come into being in early Neolithic times.² In the Balkan countries the Neolithic family house has survived in backward areas to this very day. In Switzerland, where low-lying level land along the shores of the lakes was at a high premium, the houses and barns were built on piles over the shallow waters.

For archaeologists the scarcity of wood and the unsuitableness of mud for housing in the northern British Isles have proved to be a real boon. In Orkney a whole settlement, including the furniture, was made of stone, and the twentieth-century excavation of Skara Brae under the direction of V. Gordon Childe revealed a quite intimate view of the life of an eight-household group of hardy Neolithic husbandmen.³

Most Neolithic settlements were small villages, even hamlets, of small house units (one- to three-room huts) that would house not more than 800 inhabitants. Neolithic man lived close to the soil, and he did not yet have either the agricultural or political techniques to manage a city economy.

Finally, it should be noted that every Neolithic community had grain-storage facilities. In Egypt, straw-lined pits in dry ground served well (as

² Lineages are discussed in Chap. 19.

³ An excellent film on Skara Brae is available for educational use. It is entitled *Prehistoric Britain: II The New Stone Age*.

they did for late prehistoric corn growers in the Plains area of the United States). In Mesopotamia, after pottery was well developed, large jars served this end. In the Danube region and elsewhere in Europe, grain cribs raised on piles to keep out animals and moisture were a regular part of the settlement picture.

TOOLS AND WEAPONS

The Neolithic dibble and sickle have already been mentioned. The Neolithic, or New Stone, Age is so called because nineteenth-century archaeologists were struck by the change in stone-working techniques that came to characterize this era. Although Neolithic man continued to use flaked flint, he gradually preferred to grind his lithic implements out of igneous rock by using wet sandstone as an abrasive. The result was a much tougher and more durable artifact, but one which took a great deal more time to make. His settled life is the clue to his willingness to put in the time. Roving Old Stone Age hunters found it more convenient to make new flints as needed rather than to be weighted down with a heavy supply. But New Stone Age man spent most of his time around the farm. It was more efficient for him to make a few lasting tools, and this he did. Further, although he did some hunting and fishing, he could stay at home during the off season to put in long hours grinding out tools while living on the food his gardens had produced in the summer months.

In contrast to Paleolithic hand axes, Neolithic adzes and axes were generally hafted to a handle. In Scandinavia this was ingeniously done by gluing the polished stone axhead (celt) into a staghorn socket, as in Figure 7-1, which in turn was hafted to a wooden handle. The softer socket acted as a shock absorber to reduce the likelihood of splitting the handle as well as to cut down the shock which would jar the wood-cutter's arm with each heavy stroke. Elsewhere in the Neolithic, stone axheads were commonly drilled through by use of drills and wet sand to provide a hole into which the handle could be fitted.

War clubs and maces became differentiated from industrial axes. In the Middle East they were pear- or ball-shaped. In North Africa and the Danube region, disk-shaped club heads were more prevalent. This type spread to the north in Middle Neolithic times.

A prevalence of flint arrowheads throughout all Neolithic deposits, except for those of the Lower Neolithic in the Balkans and parts of the Near East, attest to the wide use of the bow and arrow for both hunt and war. In the area where the bow was little used, baked-clay sling pellets show that the weapon with which David felled Goliath was not just a Hebraic device, by any means.



Fig. 7-1. Scandinavian Neolithic celts (polished stone axheads) with staghorn sockets for hafting in wooden handles. (Museum of Anthropology, University of Minnesota.)

CERAMICS

Pottery, in contrast to stone, allows for a great range of variation in style and manufacture. Distinctive local types abound in the Neolithic, and the study of their distribution is a great aid to the expert in tracing the movement of peoples in this and later prehistoric ages. All Neolithic pottery was made without the aid of the wheel or kiln.⁴

MEGALITHS

In the heartland of Neolithic origins, the dead were carefully interred in a sitting knee-chest position in excavations into which were also placed provisions of food and personal belongings.

In northwestern Europe honor to the dead eventually was expressed in the raising of the monumental *megaliths* (Gr. *megas* great + *lithos* stone) of Scandinavia, Brittany, and southern England.

Upper Paleolithic man had been caught up in imaginative sympathetic magic. Neolithic man, in his turn, became engrossed in the imaginative worship of the sun and the dead. He raised vast monumental sym-

⁴ See Chap. 13 for a discussion of pottery techniques.

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bols of solid rock to make his intangible beliefs objectively perceptive. With what must have been incredible toil, he and his fellows moved and raised huge stones by sheer force combined with elementary engineering. Some of these monuments were single standing stones; others of them were chambered sepulchers; and yet others were raised in combinations to constitute ceremonial plots.

The most ancient form of the Neolithic burial chamber of Europe is the *dolmen* (Breton *tol* table + *men* rock), so called because it was constructed of a flat rock laid horizontally like a table top over several sup-



Fig. 7-2. Neolithic dolmen. Cornwall. (E. A. Hoebel.)

porting boulders set on edge. Thus a rough, closed chamber was formed in which interments were made. Usually, but not always, the dolmen was covered with an earth mound, called a *tumulus*; the dolmen and tumulus together constitute a *barrow*. In the later phases of the Neolithic, simple dolmens were elaborated into multichambered dolmens consisting of several connecting dolmens under a single tumulus. Some types of dolmens had a long narrow passage leading into the main burial chamber, as the elongated entrance of an Eskimo iglu leads to the domed ice hut. This kind of dolmen is known as a *passage grave*. A still later development was to construct only the passage without the main dolmen. Such a structure is a *hallcist*. Ultimately, in the late Neolithic, very small hallcists, large enough to encase only a single individual, became the favored burial receptacle. So the dolmen evolved to the *cist*.

Some enthusiastic diffusionists, notably the English anthropologists G. Elliot Smith and W. J. Perry, have seen the Neolithic burial mounds as evidence of Egyptian explorer-adventurers in the North. Certainly, the

burial chamber has a wide distribution along the Atlantic and North Sea coasts and in the vicinity of the Black Sea, too, but the lack of conformity in specific detail to the Egyptian *mastaba*, from which the diffusionists suppose the Neolithic forms to be derived, argues against the validity of the theory.

A single, standing stone is a *monolith*, or if we prefer Breton usage for the many monoliths that dot their homeland, we may call it a *menhir* (Breton *men* stone + *hir* long). Neolithic man raised thousands of menhirs, probably to serve as monuments, even as we raise large stone blocks as enduring memorials to great events and persons. But because they were more than mere memorials, menhirs had a fetish quality among many primitive peoples. Jacob, for example, when he saw the ladder to Heaven and heard the voice of God, commemorated the miracle with a sizable rock, declaring, "And this stone, which I have set for a pillar, shall be God's house. . . ." ⁵ In this way the stone became a memorial and the abode of a spirit.

A single monolith can kindle a sympathetic imagination. A cromlech or an alignment, however, presents a mysterious majesty that excites almost unlimited speculation and wonder. Of the great cromlech of Stone-

⁵ Genesis 28:22. Other Biblical references to the raising of menhirs occur in Genesis 35:20, Joshua 4:1-9, I Samuel 7:12.



Fig. 7.3. Stonehenge. (British Ministry of Works.)

henge, in England, more than a thousand articles and books have been published, some born of mere fancy and others of scientific labor.

A *cromlech* (Welsh *crom* concave + *llech* a flat stone) consists of menhirs arranged in a circle to form a ceremonial ring—an outdoor temple. At Stonehenge the great stones were hewn and shaped, some of them fitted so as to form a semicircle of doorframes within the western circumference of the great circle. Outside the circle, on the mid-line of an avenue that stretches away from the cromlech to the east, stand two large stones in alignment with the central portal of the circle. By means of astronomical calculation it was determined that at the instant of the rising sun on the day of the summer solstice on or about 1680 B.C., these stones would have cast their long shadow through the portal to fall upon the altar stone within the ring. The accuracy of the astronomical dating is confirmed by the results of the analysis of the radioactive carbon materials (C^{14}) from Stonehenge in 1952. The C^{14} -date is 1848 B.C. \pm 275 years.⁶

Because other cromlechs and alignments also have a solstitial orientation, there can be no question but that great annual rites were held at these prehistoric sites to do worship to the sun at the moment of the year when the sun's power was greatest.

Several thousand years later the American Indians of the Plains were found in much the same activity in a very similar setting. In the sun dance of the Indians, however, the pillars of the outdoor "temple" are of wood rather than stone, and a new structure is erected for each annual ceremony. The sun-dance lodge of the Indians is circular, and the entire camp of the assembled tribe forms a great camp circle around the lodge. A wide-open mouth is always left on the east side of the circle, so that the rising sun may shed its first rays directly into the dance lodge to fall upon the expectant worshippers. Though much of the old religion of our Plains Indians is gone, most of the tribes still practice the sun dance, because they still sincerely revere the Sun Father.

Similar in function to the cromlechs, but different in form, are the alignments. An *alignment* is a form of ceremonial plot in which menhirs are set in a series of rows. At Carnac, in Brittany, stands the most famous of all alignments: three groupings of monoliths that stretch across the level fields for nearly two miles in widely spaced ranks ten to thirteen rows deep. No fewer than 2,210 monoliths stand to this day in the grand arrangement where they were set in late Neolithic times.

The great stone monuments of the Megalithic cultures of the Neolithic

⁶ See R. F. Heizer, "Long-range Dating in Archaeology" in A. L. Kroeber (ed.), *Anthropology Today*, pp. 14-17, for an explanation of radioactive carbon dating. The relevant sections are reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 54-58.

are solid evidence that in those days religion had come to play a role of great importance in the affairs of men. It had passed the phase of individual power and magic. Religious order must surely have been mainly in the hands of permanent priests, who had the power and authority to organize extensive concerted effort on the part of the tribesmen. In this there was also something of the germ of government.

THE NEOLITHIC COMPLEX

We have thus far summarized the main achievements and characteristics of the New Stone Age. It has been shown how in the Old World the major elements of this great cultural development flowered first in the Near East, rapidly to diffuse throughout most of the adjacent land masses. For the Neolithic way of life was so vastly superior to that of the lowly hunter that those who were exposed to it quickly changed over—if their environment permitted farming or herding. For the past four thousand years it has been the life-way that held sway over most of the globe until the beginning of the twentieth century. The primitive world that is analyzed in the following sections of this book is almost entirely a Neolithic world. During the fifteenth to nineteenth centuries the paleolithic type of hunting culture survived only among the marginal peoples who inhabited the Arctic, the subarctic and arid regions of North America, the deserts and deep interior jungles of the Americas, Africa, Asia, and Australia. In Europe the Neolithic complex was completely displaced long before the Christian era.

THE URBAN REVOLUTION OF THE IRON AND BRONZE AGES

The Bronze Age. Bronze is an alloy of copper and tin. Its discovery or invention marked the third great revolutionary innovation in the technological culture of prehistory. The introduction of bronze ushered in the ages of metallurgy and all that they would bring in their train.

Before the use of bronze had made its way into the cultures of Europe, there was a brief and fleeting era of copper, which was used raw without smelting. It was merely beaten into shape, as the Indians of the Great Lakes region of North America were working copper in the seventeenth century. Most of the raw copper used in antiquity came from the Isle of Cyprus, which has given the name *cyprolithic* to the Copper Age. Some authorities, however, prefer the term *chalcolithic* (Gr. *chalkos* copper + *lithos* stone) as being more directly descriptive.

The copper phase was by no means universal in prehistory; its distribution was largely determined by the accidental fact of the natural distribution of raw copper nuggets. In Old World prehistory, once the use

of copper was established, the discovery of bronze followed in rapid order. The Copper Age lasted no more than a few centuries.

It is probable that bronze was discovered by accident rather than invented by design. The likely situation would be one in which rocks with a high copper content, also containing some tin, were used in the building of primitive hearths. Particularly hot fires would have reduced the copper and tin to a molten state, with the result that it then ran down to the ground and flowed in little rivulets into depressions that formed natural molds. To the wonderment of men, it hardened upon cooling into a tough, durable, rustless, attractive metal. Then some ingenious mind hit upon the idea of pressing a stone axhead into the ground to form the depression into which the molten alloy would flow. Result: a perfect reproduction of the stone celt in bronze!

The first step in the transition from the New Stone Age to the Age of Bronze literally exemplifies that new inventions are molded in the case of old forms. Usually it is enough at first for men to be able to seize upon the new medium. Only later, as they become familiar with it, do they begin to play with it sufficiently to break free of the old molds and create new forms. Thus the bronze celt gradually began to outgrow its old form; wings and flanges were added to give stability to the hafted axhead. In the final stage, the wings had grown so large that at last they met to form a complete socket. This then gave birth to the idea of molding the ax in the form of a cup to receive the L-shaped handle. The transformation of the celt was complete in the last phase of the Bronze Age (Fig. 7-4).

Bronze gave rise to the development of many other types of weapons. Long swords grew out of the chipped-stone dagger. In the early Bronze Age these swords were of the poniard type, suitable for punching an adversary full of holes. In the late Bronze Age broad-bladed swords with double edges for two-way hacking were perfected—suitable for butchering an opponent. A modified bronze dagger fastened at right angles to a long shaft produced the halberd popular in the wars of the Middle Ages. Slim handsome battle axes with tasteful decoration were developed out of the Neolithic polished stone ax with the haft hole. Bronze spearheads replaced the more fragile ones of flint. Bows also persisted, though apparently without great popularity, since Bronze Age arrowheads are relatively scarce. The men of this period seemed to prefer the rough-and-tumble of hand-to-hand combat.

The great variety of weapons and their numerous occurrence indicate that Bronze Age life was not particularly peaceful. Villages were somewhat like fortified camps, and men went forth well armed. But man is a peculiar creature who exerts his ingenuity in the creation of better and more effective ways of killing his fellow men, at the same time racking

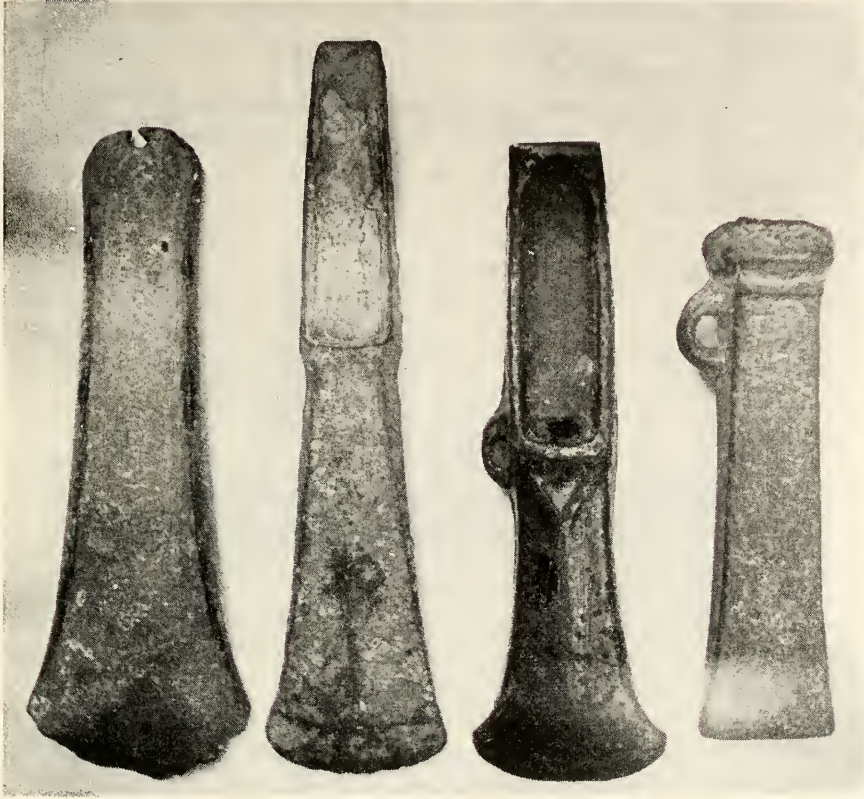


Fig. 7-4. Evolution of the Bronze Age ax from celt-shaped (left) to socket type (right). (Museum of Anthropology, University of Minnesota.)

his brains to find means of nullifying his lethal capacities. For every killing tool he invents, he is soon busy thinking up a defensive specific. Then he feels impelled to produce some new offensive weapon for which there is no defense. This results in progress: e.g., it cannot be denied that the development of the modern airplane has been greatly fostered by its use for war. Thus, just as in the present century the submarine has led to the depth bomb, the tank to the land mine, and the airplane to the anti-aircraft gun, so the sword, spear, and halberd of the Bronze Age led to the bronze shield, helmet, and cuirass. But shields and helmets antedate the Bronze Age, for shields of wood, wicker, and leather were used as defenses against stone axes, wooden clubs, spears, and arrows by primitives who were ignorant of metallurgy. Neolithic man, too, must have protected himself with such devices. It is not to be supposed, however, that the rank and file of men in the Bronze Age carried the handsome bronze shields that are to be seen in the British Museum, or wore the

becoming bronze helmets. The ordinary man had no better defensive equipment than had the fighter of the New Stone Age. Precious bronze armor was for chiefs.

But though war engenders production and stimulates progress, it is not productive. The life-giving heart of Bronze Age civilization was not in warmaking but in the husbandry that made a nursery of the soil and barnyard. Farming was pushed farther than it had been in the New Stone Age. Improvements in crops came about because of selective breeding and better methods of cultivation. Wood plows were extensively used; bronze sickles are common finds. The men of the times still fished, and they made harpoons and fishhooks of their new metal. Seagoing boats capable of carrying a number of passengers were developed from the dug-out canoe.

Life was rich and full. The needs of food and shelter were well met, nor was the vanity of man and woman neglected. Numerous bronze razors prove that the rite of shaving held a fashionable sway. Simple and ornate bronze safety pins (*fibulae*) were worn as brooches by both sexes. Elegant bracelets and necklaces of bronze and gold were abundant.

Commerce flourished in steady streams of traffic up and down the valleys of the stately rivers of Europe and Russia. Where the overburdened merchant cached his wares along the valleys are now found hundreds of archaeological treasure-troves.

Habitations were gathered in larger settlements. Houses were mostly two-room structures of palisaded logs covered with thatched roofs. In Switzerland pile dwellings, such as had been made in Neolithic times, persisted. But in the advanced centers of civilization great palaces of stone and plaster were built.

Megalithic monuments continued to be built in the North and West, as in the New Stone Age, but the practice was gradually falling into disre-gard as burial in cists became more popular; still later, toward the end of the Age of Bronze, cremation became fashionable.

Pottery became more and more a craft of skill, with localities vying with one another until such a bewildering variety of local styles was developed that the study of Bronze Age pottery has become a field of modern scholarship in itself.

Although decorative art flourished on jewelry and pottery, there was little pure art in the Bronze Age. Nevertheless, crude but expressive pictographs were carved into the rocks of the North to leave a documentary record of many phases of the life of the times (Fig. 7-5). In decorative art, stylized geometric figures and spirals played the dominating role.

The Bronze Age, which began in the Near East about 3000 B.C., had run its course at the opening of the first millennium before Christ. During its span it gave rise to such rich and vigorous protoclassical civiliza-



Fig. 7-5. Bronze Age pictographs from Sweden. Plowman, charioteer, and proto-Viking crew.

tions as Minos in Crete, Mycene in Greece, and the early dynasties of Egypt and Babylonia. It was the heroic age of Homer. The centers of culture had become great cities with all that city life came to hold for man in new ways of living and thinking.⁷

Any student of classical civilization is fully familiar with the life and cultures of ancient Greece, Rome, and the Near East. Writing, which had had its tentative beginning in the Mesolithic era, had reached a high stage of development by the time of the Iron Age, which was well under way in Egypt and the Near East by 1500 B.C. In the many civilized cultures of the Iron Age, written records were inscribed not only on tablets of rock and clay or on walls and monuments, but were carried on parchment scrolls and papyri, too. They speak to the modern scholar in the very words of the people who wrote them. They are infinitely better raw materials for culture history than the meager archaeological treasures of the anthropologist.

The Bronze Age forms the bridge by which we leave prehistory and enter the historic era of man's existence. It is the solid link by which our present is tied to our once-forgotten past. There is a perfect continuity from the Old Stone Age to the present historic era through the New Stone Age and the Ages of Bronze and Iron.

Iron Age. The student who is familiar with the Gauls, the Belgians, the

⁷ The effect of the urban revolution on the moral outlook of human beings is brilliantly examined by R. F. Redfield in *The Primitive World and Its Transformations*.

Helvetians, and the Britons of Caesar's time knows the tribes of the late Iron Age in central and western Europe. But they represented only the most backward and conservative peoples of the Iron Age. One would refer with greater justice to accomplishments of this era by undertaking a study of the great civilizations of Greece, Egypt, Rome, Mesopotamia, and the Far East. In these centers the arts flourished; mathematics, astronomy, and philosophy flowered; there were empires strenuously competing with each other for dominance. For these peoples, and for those who successively came under the influence of their cultural advances, as civilization spread its web wider and wider through the ensuing ages, the world of primitive man disappeared through transformation to the world of civilization. For three thousand years the Iron Age set the patterns of life for the most advanced peoples.

SUMMARY

The Dawn of Civilization came at the end of the Neolithic Age; the High Noon is in the present. The long incubus of the Old Stone Age ended quite suddenly as accumulating experience finally brought to men the capacity to domesticate plants and animals. The quantitative increase in food and its more constant availability stepped up the controlled energy sources available for the maintenance of any given population. This meant that human effort need no longer be devoted wholly to the trying task of getting enough food to keep alive. Perhaps even more important at first was the fact that people could settle down in fixed villages. They became sedentary. The local group could support larger numbers and division of labor could be elaborated. It was now possible for cultures to expand in a number of directions, and trade was launched on a broad scale.

The major effect was the urban revolution—a new way of life that was to set the basic pattern for all subsequent ages. The revolution was first effected in the Middle East and South Asia. From there, urbanization spread outward in all directions.

The earliest migrants who came to North America were pre-Neolithic hunters, but their descendants rather quickly succeeded in domesticating New World plants and, to a lesser extent, animals, as well. Some five thousand or more years after the inception of the Neolithic Age in the Middle East, it was also under way in Middle America. In due course an independent urban revolution emerged there, as well.

The production of bronze and iron stepped up the technological efficiency of the erstwhile Neolithic Age with the result that true cities, characteristic of the great classical civilizations, mark the cultures of the later Bronze Age and the whole of the Iron Age in Europe and the East.

In these regions the primitive period of human history came to a close, except for backward, peasant peoples. By the fifteenth century A.D. the Neolithic complex had spread to all parts of the world, except the marginal fringes of the continents and some desert and deep jungle areas. Few paleolithic-type hunters remained anywhere.

SELECTED READINGS

- Brew, J. O.: "The Metal Ages: Copper, Bronze and Iron," Chapter 5 in H. L. Shapiro (ed.), *Man, Culture, and Society*. A good introductory summary.
- Childe, V. G.: *The Dawn of European Civilization*. Probably the best general coverage of the subject.
- MacCurdy, G. G.: *Human Origins*, Vol. 2. Not absolutely up-to-date, but very good on the basic features of these epochs.
- Redfield, R. F.: *The Primitive World and Its Transformations*. A study of the social effects of the urban revolution.

Part Three

RACE AND CULTURE



Masai warriors.

CHAPTER 8. Races of Mankind

ALL living human beings belong to a single genus and species. This means that in all their major biological characteristics they have more in common than they show in distinguishing differences. It is in this sense that we recognize the commonality of the human race.

At the same time most individuals appear physically different from others in a number of easily discernible traits. This, of course, is even true to some degree within every family of brothers and sisters. If such differences were evenly distributed around the face of the globe, they would merely be noted as representing individual variation among human beings, and that would be that. The fact is, however, that certain distinctive traits tend to cluster in populations that live predominantly in one part of the world or another. It is these populations and the people directly derived from them that we have in mind when we talk about *races*.

The traits that may be noted superficially are such physical manifestations as color of hair, texture of hair, quantity and distribution of hair on the body, eye color, shape of the eyelids, shape of the nose, the lips, and the face in general, color of the skin, body height, and general form.

Anthropometry has been developed over the past century as a technique of measurements for giving more precise expression to such features. It refines to a nice degree all that the layman can see with the unaided eye, and goes on to reduce to measurements many more less obvious features that the inexpert layman is quite unaware of. Thus it provides the raw materials for a scientific beginning to racial identification. But it is only a beginning. Races do not emerge from the welter of measurements until the observer succeeds in classifying all his individuals according to types.

At this point everything that was said about the problems of classification of primates, indeed, all that we have said about classification in general, becomes pertinent to the problem. It should never be forgotten

that every classification is a matter of judgment, an act of reason. If our observations are real, the traits we record are intrinsically part of the human beings that surround us. The setting up of mental compartments into which to sort these traits is an act outside the facts themselves. The compartments are constructs designed to aid us in reducing the welter of things we see to simpler and more generalized units. They exist essentially in our minds. They are valid constructs in so far as the criteria for recognition and classification of the traits in question are in accord with the real qualities of these traits. If they are not, the constructs are only imaginative and float in the realm of fantasy.

Many popular notions about race go far beyond the facts and rest on folkloristic beliefs. Hence, some anthropologists in overreaction have gone to the extreme of rejecting the whole concept of race as a myth.¹ What we think of as races, however, have been with us for a long time and will continue to be around for some time to come. Therefore, it behooves the student of anthropology to consider scientifically how best to conceive of race and the races of mankind.

RACE DEFINED

A race is a major grouping of interrelated people possessing a distinctive combination of physical traits that are the result of distinctive genetic composition.

Inbreeding. The foundation of organic physical structure is the gene. The members of a given race are more like each other in certain physical traits than they are like other human beings because they possess certain genes in common that other populations do not have, or have in greater or lesser quantity. These genes have been distributed among the members of a racial population through interbreeding between its members—or intrabreeding within the population. The population shares a gene pool that is not exactly the same as the gene pool of other populations. Inbreeding is the result of isolation and limited mobility. Isolation among men is the consequence of geographic circumstance *and* social inhibitions.

Space and physiographic features are the primary geographic stimulators of inbreeding. North American Indians did not mate with Australians, because 12,000 miles of ocean separated them. The Polar Eskimos in northwest Greenland were so isolated that, until their illusion was shattered by the arrival of the first Europeans, they thought they were the sole inhabitants of the earth. When we consider that the Polar Eskimos numbered no more than a few hundred individuals, we can realize how close their inbreeding had to be. In fact, in almost any of the smaller primitive tribes (and this includes the majority of all tribal groups) every person is apt to be a genetic relative of every other.

¹ E.g., M. F. Ashley-Montagu, *Man's Most Dangerous Myth: the Fallacy of Race*.

Social isolation, in contrast to geographic isolation, is man-made. Whether we like to admit it or not, human beings in general prefer to associate with their own kind. They incline to be suspicious of differences and to give warm approval to likenesses of themselves. The *consciousness of kind*, which the sociologist Giddings saw as the basis of social groupings, has its counterpart in a *consciousness of difference*. *Endogamy*, or marriage within the group, is a consequence of these two sets of attitudes. The function of endogamy is to regulate marriage in a way that preserves the cultural identity of the group. Its biological effect is to produce intensification of distinctive physical traits through inbreeding. Social distance has the same physical consequences as geographical distance.

The effect of inbreeding is to intensify or narrow the distribution of genetic traits within a population. The physical characteristics of the individuals within the population then reveal a greater degree of standardization than is the case where there is little or no inbreeding. Any unique qualities of genetic composition become more marked, and racial differentiation is thereby enhanced.

This fact has been demonstrated over and over again in animal husbandry.

Among biologists a fundamental principle is that "general anatomical resemblances imply relationship and that detailed similarities of face and form mean that the individuals possessing them have in common all or nearly all of their ancestors." It is assumed in physical anthropology, therefore, that groups of persons who bear distinctive anatomical resemblances are more closely related to each other (inbred) than to others.

Distinctive Physical Traits. The question as to what constitutes a realistic combination of distinctive physical traits is the one that poses the greatest difficulties. What traits legitimately go into the combination and what must be left out?

There is obviously considerable overlapping of single traits among the different races. Only the Negro has a distinctive lip, for instance. This means that a generalized lip form occurs in all other races. Black hair distinguishes the Negro from the blond Nordic but not at all from the multitudinous Mongoloids. Thus the fact that any one of the physical traits found to be characteristic of a race may be found in other races has in itself neither positive nor negative significance. Any suggestion that the presence of a single trait in two different races indicates genetic affinity between the races would be absurd. The fact that certain Melanesians possess "Semitic" noses cannot be used as evidence of Semitic ancestry for those Oceanic Negroes. On the other hand, neither can it be said that the fact of this nose is not an important element in the cluster of distinctive traits that characterizes each of these groups.

The whole concatenation of traits marks the race. Yet an individual person rarely possesses all the traits that characterize his race. If, for pur-



Fig. 8-1. BKO Pygmy and Balele Negro. (*Belgian Government Information Centre.*)

poses of illustration, we say a particular race has twenty-five traits in a distinctive combination, it does not mean that every person who properly is a member of that race possesses all twenty-five traits.

The Swedes, for example, are a notably homogeneous population with unusually distinctive physical traits: flaxen hair, blue eyes, light skin, long heads, etc. Retzius and Furst, in 1898, in measurements of 45,000 Swedish army recruits, found that only 11 per cent possessed *all* the traits that go to make up the distinctive Nordic combination; 29 per cent had all traits except that they were roundheaded. Sixty years ago the statue of an average Harvard undergraduate was produced by sculpting a statue according to the average physical measurements of the Harvard student body. But only one in 1,024 Harvard students would conform to this ideal type.

Should we not conclude from this fact that the racial combination is an imaginative idealization of types that rarely occur in any given individual? Those who would wish away races answer "Yes."

It is a fact that race-conscious persons hold an image of racial types in their heads. The type consists of all the distinctive traits of a race in combination. When these persons associate an individual with a given race, because that individual has one or more of the type traits, they either overlook the presence of nontypical traits or they impute the type traits to the person being considered. Correction of such false perception is a matter of social psychology.

The scientifically oriented observer will make no such error, because he knows that a race is statistically determined on the basis of biologically derived data.

Statistically, any student of elementary biology knows that all morphological traits are variable. He also knows that each trait is limited in its range of variability, that the variables tend to cluster around a norm or mean, and that the occurrence of extreme forms of the variable become less frequent the farther they vary from the norm. Statistically, when plotted for frequency distributions, variables usually form a humpbacked curve with the same number of units falling on each side of the mean. This is the old familiar frequency curve. In a normal distribution curve the mean (average) coincides with the mode (variable of greatest frequency) and the median (mid-point between the two extremes of the range). In a skewed or lopsided curve these three types of norms will not coincide (Fig. 8-2). In such a case physical anthropologists usually use the mean as expressive of the physical trait characteristic of the group. Thus, according to Hooton, the mean stature for Ainus is 157.9 cm (5 feet 3 inches), for Negritos 150 cm (4 feet 9 inches), for Nilotic Negroes 175 to 180 cm (5 feet 10 inches to 6 feet), and for Nordics 172 cm (5 feet 8.8 inches).² We can properly say that the Ainu and Negrito races are short and the Nilotic Negroes and Nordics are tall.

² E. A. Hooton, *Up from the Ape*, pp. 503ff.

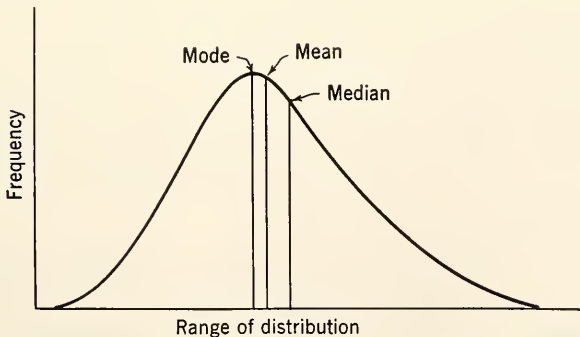


Fig. 8-2. Three kinds of norms in a skewed frequency-distribution curve.

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In detailed specialized studies, physical anthropologists usually give the total range of distribution with coefficients of deviation.

Figure 8-3 illustrates comparative distributions with respect to the relative statures of Navaho Indian and white American girls of college age (16 to 24 years, average age 20 years). These comparative data show some overlapping in the ranges of distribution for the two groups. Some Navaho girls are taller than some white girls. However, although 5 per cent of the Navaho girls are less than 4 feet 9 inches (1,500 mm) in stature, not a single white girl is shorter than this. On the other hand, although 28 per cent of the white girls are more than 5 feet 4 inches (1,640 mm) tall, not a single Navaho girl exceeds this height.

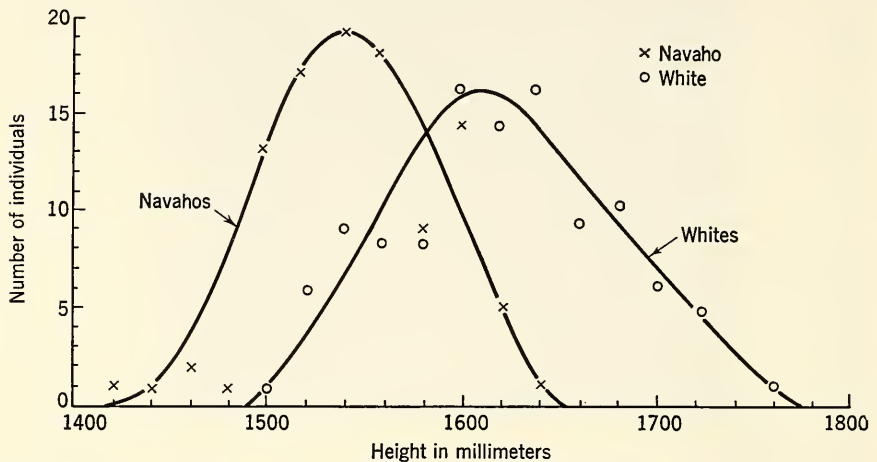


Fig. 8-3. Frequency distribution of stature among 100 Navaho and 100 white American girls of college age.

The average (mean) stature of the Navaho girls is an even 5 feet (1,556 mm; Probable Error [P.E.] ± 2.81 ; Standard Deviation [S.D.] 41.70 ± 1.99). The average (mean) stature of the white girls is 5 feet 3 inches (1,628.05 mm; P.E. ± 3.75 ; S.D. 55.59 ± 2.65).

The shortest Navaho girl is 4 feet 8 inches (1,420 mm) tall and the tallest Navaho girl stands 5 feet $3\frac{3}{4}$ inches (1,640 mm). Among the white girls the shortest of the group is 4 feet $11\frac{3}{4}$ inches (1,520 mm) and the tallest is 5 feet 9 inches (1,760 mm). The range of variability between the shortest and the tallest Navaho girl is $7\frac{3}{4}$ inches; between the shortest and the tallest white girl, $9\frac{3}{4}$ inches.³

It will be seen that the difference between the average heights of the two groups is approximately 3 inches. Thus the differences between the

³ M. G. Steggerda, "Physical Measurements on Negro, Navajo and White Girls of College Age" (*American Journal of Physical Anthropology*, Vol. 26, 1940), p. 420.

tallest and the shortest within each of the groups is greater than the difference between the means of the two groups.

A recent tendency among some anthropologists has been to emphasize that in such single traits the groups are more akin to each other than are the extreme members within one of the groups. This is perfectly true, and it should serve to warn us against overemphasis on racial differences, but it does not wholly negate the significance of the differences that are to be discerned in the averages.

The distribution of statures among the little Congo Pygmies, the Japanese, and the lanky Nilotic Negroes reveals racial characteristics in bodily length in even sharper terms. In the samples represented in Figure 8-4

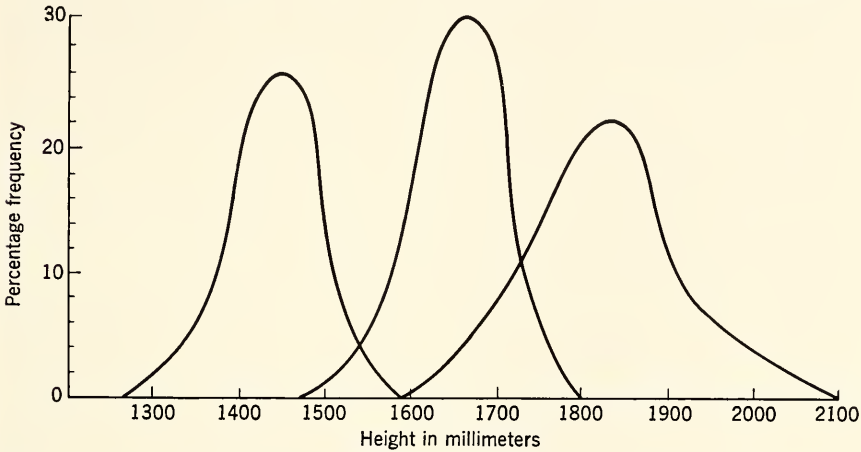


Fig. 8-4. Frequency distribution of stature among 98 Congo Pygmies, 109 Japanese, and 115 Nilotic Negroes (Dinka tribe). (Modified from Boyd, *Genetics and the Races of Man*, p. 297.)

there is absolutely no overlap between the Pygmies and the Nilotics. The Japanese cluster, for its part, is clearly distinct from the other two.

Genetic Factors in Race. All traditional classifications of race established by physical anthropologists have been in terms of external physical qualities of the order just discussed. What the physical anthropologist has been concerned with until just recently is, therefore, the *phenotype* (Gr. *phainein* to show). Phenotypes look alike. Genetically, however, they may be different. Therefore, a more penetrating analysis of race will seek to isolate the gene qualities that determine the form rather than be content to consider only the form itself. In other words, the question becomes, "What is the genetic composition of the population?"

To undertake the answer to such a question, it is necessary to have an understanding of the basic principles of Mendelian inheritance.

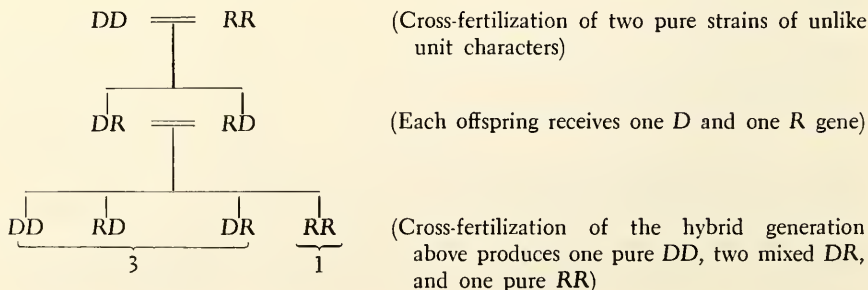
First of all, trait determiners exist in the form of genes, which are

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passed to offspring through the germ plasm of the parents. The germ plasm contains rodlike cells, called *chromosomes*. The number of chromosomes contained in the reproductive cells, *gametes* (Gr. *gamete* wife, or *gametes* husband), varies from species to species: in human beings the number is 48, of which 24 come from each parent. Chromosomes may be seen microscopically when properly stained. Genes are submicroscopic structures which have not yet been actually observed. Their existence is scientifically inferred and hypothetically necessary to explain the known facts of heredity. A gene is a biochemical structure that forms a discrete entity. Each gene exerts a specific influence on the development of the organism. How it exercises this influence is at present outside the reach of our knowledge. Whatever the process, it staggers the imagination!

The genius of Gregor Mendel (1822–1884) was to demonstrate that when contrasting pure lines of a plant, such as smooth or wrinkled peas, are crossbred to produce hybrids, the hybrid offspring in almost every instance shows only one of the contrasted characters in its form. Mendel called the prevailing character *dominant* (*D*) and the apparently suppressed character *recessive* (*R*). From this comes Mendel's first law of heredity: *a crossing of two different pure lines of the same kind of organism produces dominant-appearing offspring*.

Mendel next demonstrated that when the hybrid offspring are bred among themselves, the original traits become segregated; i.e., the recessive character reappears in the third generation offspring in one out of four cases. When fertilized only by their own kind, the doubly recessive offspring produce only their own type through all subsequent breedings. The dominant-appearing types, on the other hand, produce one recessive to three dominant-appearing offspring. Of these three, one will produce all dominant offspring, while two will produce dominant and recessive offspring in the 3:1 ratio. From this is derived Mendel's second law: *unit characters (genes) segregate in hereditary transmission*. Put otherwise, unlike genes for the same trait (although the effect of one does not ordinarily show) remain unaltered by their association in the gamete, and they are separated unchanged when passed on to the next generation.



An individual that receives two like genes for a given trait from its parents shows both traits in its appearance, since both genes are the same; it is called a *genotype*. An individual that receives two unlike genes for a given trait from its parents shows only the dominant trait in its appearance; it is called a *phenotype*.

Traditional physical anthropology dealt only with appearances. Because appearance does not reveal the true genetic composition of the majority of individuals at a given moment, and since race is controlled by heredity, obviously anthropologists in the past have been only scratching the surface. They were, as Washburn states, "chiefly concerned with sorting the results of evolution." Today the application of genetic principles to the study of race makes it possible to sort the results more exactly, and even more important, to move toward a more adequate understanding of how races develop and why.

Yet a warning must be raised that a genuinely genetic classification of race is right now more of a potential than a realized fact. Too few human genes have been separated out of the welter that go into human heredity to make it possible to define races clearly on a genetic basis. Estimates indicate the probability of some 10,000 different gene locations on the human chromosome. Since two genes occur on similar loci on the paired chromosomes in a gamete, the possible number of different gene combinations (assuming 10,000 loci is approximately correct) would be $3^{10,000}$. Small wonder that every individual is constitutionally unique! Furthermore, the human body is so complex that few of its parts or functions are controlled by one type of gene alone. This adds to the difficulty of separating out specific genes for racial classification.

The best progress made to date has been through identification of blood-group genes, and through the study of their population distributions.

Blood Groups and Race. Almost everyone is today familiar with the existence of the O, A, B, and AB blood types. Blood is classified according to its agglutinative reactions; i.e., as to whether the hemoglobin (red blood corpuscles) clump together when mixed with alien blood. Two classic blood clumpers, A and B, were the first to be isolated. They are antigen A and antigen B. Type O blood is immune to the effect of both antigens; hence it can ordinarily be used in transfusion to any other basic blood type. (O-type persons are universal donors.) Type A can be transfused to Type A and AB, but not to B. Type B can be transfused to Type B and AB, but not to A.

Soon after blood types were discovered, it was noticed that the percentage frequencies of the four types were not the same for different phenotypic races. First off, it was observed that most European populations run 40-50 per cent O, 30-40 per cent A, 8-12 per cent B, and 1-6

per cent AB. In sharp contrast, some American Indian tribes revealed almost all O, a little A, and virtually no B. The Utes, for example, run 98 per cent O, 2 per cent A, and zero for B and AB. As against Europeans here is surely a clear-cut hereditary racial difference. Among the Mongoloids of Asia, the samples thus far tested show roughly around 30 per cent of O, A, and B, with a small residue of AB. Local populations within the larger geographic populations just mentioned vary in O, A, B, and AB distributions to some extent, but the major differences tend to run as indicated.⁴

The advantage of blood types as genetic criteria of race is that they are discrete traits. A type is either present or absent in a person. It is not ambiguous like "olive skin" nor continuously variable, as stature. Therefore, the gene distribution in the population for blood types can be precisely calculated—and these distributions vary by populations.

In addition to the classic blood types, numerous other agglutinators have been discovered since 1927. These include the M and N types, the Rh positive and negatives, with several subtypes, the Lewis, Lutheran, Kell, Duffy, and Kidd. Not enough sera have been available as yet for extensive testing of racial populations for all of these.

The A antigens have been found to fall into two subtypes A_1 and A_2 . It is significant that the A occurring in American Indians, Asiatics, Pacific Islanders, and Australians is all A_1 . This fact reinforces the idea of their common ancestry.

Rh negative genes occur in about 15 per cent of Europeans. They are absent among Asians, Australians, Pacific Islanders, and American Indians who have been tested to date. Once again, the Mongoloid affinity of the American Indian is apparently confirmed.

Beyond blood groupings not much progress has thus far been made in isolating easily identifiable genes for use in racial classifications. One that is peculiarly interesting was discovered twenty-five years ago by A. L. Fox: namely, that which determines the ability to perceive a bitter taste in phenylthiocarbamide (PTC). Dr. Fox was working with this compound in his laboratory when his coworker complained of the bitter taste of the dust it produced in the air. Fox, who could not feel any effect, put crystals directly on his tongue and found them tasteless. The other chemist did likewise, and found them very bitter. This led to putting PTC to the taste of other workers. Some tasted, others failed to taste, the bitter quality.

Follow-up studies showed the tasting ability (T) to be inherited as a Mendelian dominant over nontasting (t). Further studies show that 70 per

⁴For the method of calculating gene frequencies in a population, see H. H. Strandkov, "Genetics and the Origin and Evolution of Man" (*Cold Spring Harbor Symposia on Quantitative Biology*, Vol. 15, 1951), pp. 1-11; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 67-77.

cent of the population of the United States are T , 30 per cent are t . In terms of gene frequency, this means that 55 per cent of the United States population carry the t gene.⁵ Within a sample of Navaho Indians, on the other hand, the proportion of nontasters is only 2 per cent. The frequency of the t gene in this Navaho population is $\sqrt{0.2}$ or 14 per cent. Here is definitely a significant racial difference. Although not enough different populations have as yet been tested for T , t , the indications are, according to Boyd, "that the results for the tasting gene parallel in general what has already been observed for the Rh negative and A_2 genes, that is, that European populations tend to differ rather strikingly from Mongoloid populations. In both situations there is insufficient information about the Africans."⁶

In sum: gene frequency occurrences for various blood types and PTC suggest five major contemporary races similar to those commonly identified by bodily traits (morphological phenotypes). These are the Caucasoid, Negroid, Mongoloid, American Indian, and Australoid. The American Indian is closely linked to the Mongoloid, but the presence of the B agglutinin gene among the Mongoloids and its absence among American Indians suggests sufficient racial differentiation on the part of the American Indians since their migration to the New World to warrant a separate racial category in genetic terms. To date, then, known gene frequency distributions validate the racial categories previously established by science. In the future, as more data come in, it is possible that genetic data may lead to further refinement of subracial categories.

THE ORIGIN OF RACES

Races differentiate within the human species as a result of four factors: (1) gene mutation, (2) natural selection, (3) genetic drift, (4) population mixture.

Mutations. A *mutation* is a change in the structure of a gene which modifies its influence in bodily development. It is now thoroughly established that mutations are constantly occurring in the gene pools of all living forms. Genes, although highly stable, are not absolutely so. Mutations are not freak occurrences that take place but once and never again. It has been quite definitely established that any mutation of a particular kind recurs again and again with fairly regular probability. Mutations, such as that which produces hemophilia, often result in early death before the individual has a chance to have children. Such mutations have little chance of entering into the permanent gene pool. Yet

⁵ The frequency of a recessive gene in the gene pool is equal to the square root of the genotypes for the recessive gene in the population: $\sqrt{0.30} = 0.55$.

⁶ W. C. Boyd, *Genetics and the Races of Man*, p. 281.

they are steadily replaced by regularly recurring mutations. As a result there are always a few hemophiliacs in a given population.

Subsequent to the discovery and use of X rays, it has been demonstrated that exposure of the sex organs to X rays increases at least some mutation rates. Certain chemicals have a like effect.

Mutations are estimated to occur at a possible rate of about 1 in 40,000 instances of a given gene per generation among human beings. If the mutant happens to be recessive, it would have no visible effect whatever on the generation in which it occurs. But if it is not lethal, its effects will show up in homologous genotypes in later generations, in very low frequency. If, on the other hand, the mutation is dominant, it will show its effects immediately on its bearer and on a majority of that person's offspring.

Dominance alone will *not*, however, cause the new trait to spread throughout the population in succeeding generations.

The only possible way in which the new form of a gene may increase the frequency of its occurrence in a gene pool is to step up its frequency of mutation from the original form or to be endowed with increased selective advantage over the old form. Increased selective advantage means that the resultant change in the organism increases its survival value and hence increases the probability that the organism will be able to reproduce itself in greater numbers than otherwise.

Because most organisms are intimately adjusted to their immediate environments, geneticists tend to assume that the chances are that any change in the organism is more likely to be disadvantageous than advantageous. Any change is a change away from an already "perfect" adaptation. Therefore, most mutations *will not* have a selective advantage. It must never be forgotten, however, that environments are never stable in the long run. The restless surface of the earth is constantly reordering its physiographic and climatic conditions. When such conditions change, mutations that were previously disadvantageous may definitely become advantageous. The qualitative effect of a mutation, except for those that are extremely lethal, need not be in the organism by itself, but may be in the way it affects the behavior of the organism in the environment of the times.

Suppose a gene has a standard form, which we will call S . A mutant form crops up, which we will call S_1 . If we assume that in 1,000 female germ plasms (gametes) with S , 1,000 result in mature reproducing organisms, and in 1,000 with S_1 (the mutant gene) only 999 result in mature reproducing organisms *because of the effect of the new gene*, then the "selection coefficient" (k) for S_1 is $-.001$. S and S_1 will be reproduced in future generations in the ratio of $S/S_1 = (1 - k)$.

In an ordinary sized population of human beings on the level of primi-

tive collectors and gatherers (population = 200) the chances of a single, nonrecurring recessive mutation becoming homozygously fixed, or permanently established, in the gene pool for that population would be $\frac{57}{100}$ of 1 per cent if the mutation has a selective advantage of .01 (1 per cent). If on the other hand, the new gene has a selective *disadvantage* of the same amount, the chances would be only $\frac{3}{100}$ of 1 per cent.

In the event the population numbers 800, the chances of the new gene becoming fixed are $\frac{27}{100}$ of 1 per cent for an advantageous mutant and zero for a disadvantageous one.⁷

Obviously, a mutation has to have a high selective advantage and frequency occurrence, plus the quality of dominance, to change the physical character of a population very seriously.

To get an idea of how long it would be necessary for such an effect to take hold, suppose a mutation occurs in 1 out of 1,000 genes of a particular type in ~~500 new births in~~ a generation. For the frequency of the gene to increase to 10 in 1,000 genes in the gene pool will require 231 generations if it is dominant; if it is recessive, it will take 90,231 generations! This means that among human beings the trait would "show" in the bodies as *DD* and *DR* in somewhat less than 40 out of every 1,000 of the population after approximately 1,000 years—if it is dominant. However, given another 2,000 years, the gene would have a frequency of more than 50 per cent in the population. In 3,000 years' time, it would certainly have become a racial trait.

Whether or not a given mutation has a selective disadvantage is often very difficult to determine. What the advantage in the gene for taste sensitivity to PTC may be, no one knows. Probably it is not in the taste response itself, but in some other effect on the organism to which the taste is no more than correlative. The advantage of Rh over the rh gene is obvious, since incompatibility between the Rh factor of the mother and her child produces a high ratio of stillbirths and postbirth deaths for such children through erythroblastosis foetalis.

Natural Selection. Genes that produce heavy skin pigmentation are obviously advantageous to people who live in the tropics. They are disadvantageous for people who live in areas of subnormal sunlight.

Coon, Garn, and Birdsell discuss the functional relation of gross bodily form to hot-dry, hot-damp, and extremely cold environments. The evidence they adduce for selective adaptation to special environments by specific races is impressive.⁸

Races, therefore, differentiate among humanity chiefly through the

⁷ See Boyd, *op. cit.*, pp. 144–146.

⁸ C. S. Coon, S. M. Garn, and J. B. Birdsell, *Races*; reprinted in part as "Adaptive Changes in the Human Body" in Hoesel, Jennings, and Smith, *Readings in Anthropology*, pp. 99–104.

mechanisms of mutation and subsequent natural selection in relation to specific environments. For a population to become a distinct race, matings must occur within the population with appreciably greater frequency than they do between it and other populations.

Genetic Drift. It is also possible for an isolated population to experience a change of its original genetic composition without the effect of mutation or natural selection. This is the result of the *Sewell Wright Effect*, named after the great contemporary American geneticist who demonstrated the workings of *genetic drift*, as it is also called.

Suppose a small group of people (or any other organisms, for that matter) migrate to a new territory, subsequently to lose contact with their ancestral group. Suppose, further, that in later generations more groups break off from the descendants of the original immigrants to make their homes elsewhere and they, too, become isolated as a population.

In a situation in which the gene frequency for a given trait is only 15 per cent for the original population, it could easily happen that by sheer chance no more than 5 per cent of the migrants carry the gene. In the gene pool of the emigrant population, the frequency of this gene is automatically reduced by two-thirds. The racial character of the original and the new societies is different by that much. Furthermore, in the absence of intermarriage, mutation, and changes in factors of natural selection, the change would remain constant indefinitely. Now suppose that in the course of time, a handful of dissident or adventurous descendants of the emigrants decides to move on to new territories. There is only a 5 per cent frequency of the gene in the total pool of their parent population. By chance, it is possible that none of them may carry the gene. In that event, the gene would drop out of the population entirely. The new population would henceforth be absolutely different from its ancestors in the trait that the gene in question produced.

Drift may also move in two or more directions simultaneously. Figure 8-5 is a simplified model of how this may take place. Let us assume equal frequencies of two alleles, *x* and *y*. In the model, each *x* and *y* represents

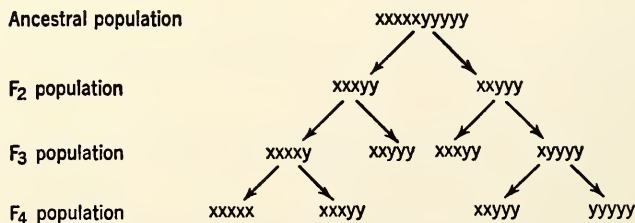


Fig. 8-5. Hypothetical genetic drift (Sewall Wright Effect) in a series of subdividing and isolating populations.

a gene frequency of 10 per cent in the total gene pool of the population. Therefore, we begin with five x 's and five y 's. Assume the population divides equally; half the people pack up and move away entirely. The highest chance probability is that the residual population and the migrant will now contain $3x/2y$ and $2x/3y$. Now, let us follow the $xxxxy$ population. It inbreeds; then its children decide to split up, and half of them migrate as their parents did. The chances are 1 in 5 that the migrating group will carry away a ratio of $4x/1y$, leaving the home F_3 generation with $2x/3y$. The migrants inbreed; then their children carry on the tradition of splitting in two, so half of them move on. The chances are 1 in 5 that the migrating group will carry away a ratio of $5x/0y$, leaving the home F_4 generation with a ratio of $3x/2y$.

The third generation of isolating migrants has lost all its y genes. In the character that y determines it has nothing in common with its racial ancestors. On the $2x/3y$ side of the F_2 generation (the right of the model) similar splitting and isolating migrations can produce a population totally devoid of x . From the original equally heterogeneous ancestral population have come several new ones with varying proportions of x and y , one that is pure x , and another pure y . The ancestral group has spawned at least three races: a mixed one like itself, a pure x , and a pure y . All this without any changes in the original gene structures, but through the fall of the gene dice when group fission occurs and the resulting groups inbreed.

It is probable that the American Indians lost their B antigen genes by such a process in the course of migration from Asia.

Population Mixture. An obvious factor in the rise of new races is the coming together of racially distinct populations, followed by interbreeding. This process is called *miscegenation*. After interbreeding has progressed sufficiently, the originally separate gene pools will have fused into one gene pool for the new population. The genes do not blend, because they retain the quality for segregation (Mendel's second law). The proportions of each type of gene in the enlarged gene pool will have altered, however, and the phenotypic appearance of the mixed population can become standardized as a new racial form.

MODERN RACES

How many races of mankind are there living today? By now it should be evident that there are few or many, depending on where the dividing lines are drawn and the criteria used. Most usages of the term *race* refer to large populations originally or currently dominating a continental land mass or archipelago. In these terms there are six or seven races: Caucasoid, Mongoloid, Negroid, Australoid, African Bushman, Polynesian. If more refined distinctions are drawn, particularly with reference to known gene



Fig. 8-6. Race mixture in British Guiana. The ancestry of the baby is Negro, Carib Indian, Chinese, and Caucasian. (*Peabody Museum of American Archaeology and Ethnology, Harvard University.*)

frequencies as well as external morphology, then there are upwards of thirty living minor racial populations or microgeographic races. There are also unnumbered family lines, closely inbred groups of near relatives within microgeographic races, such as can be found in isolated backwoods areas of the United States or among the members of endogamous kindred in primitive tribes.

Each of the three great races is ordinarily classified into three major subraces as follows:

CAUCASOID	MONGOLOID	NEGROID
Nordic	Asiatic	African
Mediterranean . . .	Oceanic	Oceanic
Alpine	American Indian	Negrito

These, in turn, are sometimes further subdivided, but on this level there is a lack of consensus among anthropologists.

In the typological description of the major races now to be given, attention is paid only to the outstandingly distinctive physical traits that characterize the several groups. It must always be remembered that many

individual members of the racial group will not look like the description. The blood-group characteristics of the major races should also be brought to mind at this point.

Caucasoids. The white race is not actually white, but relative to other races it is light-colored. Eye color among Caucasoids varies from light blue to dark brown. Hair is ash blond to black, of fine to medium texture; it may be straight, wavy, or curly, but rarely kinky and never woolly. The males tend to grow hair on their chests, arms, legs, and faces as well as on the tops of their heads. The nose is narrow and high, rarely broad or flat. Although the forehead is usually sloping, the face is not prognathous. Chins tend to jut and lips are thin. Stature is medium to tall.

Within the Caucasoid race the Alpines are concentrated in East Central Europe and Asia Minor. Recent migrations have sporadically distributed them in western Europe, North Africa, and North America in particular. They are brachycephalic (cephalic index [C.I.] 83 to 88) and have broad faces with sharp square jaws. They are brunettes through and through; eyes and hair are brown to black; the skin is olive-hued. The nose is well padded with adipose tissue at the tip, and it tends to be broad. The body is usually solid and heavy, rarely exceeding medium stature. Alpine men can grow fine dark beards; and if hair on the chest indicates masculinity, they have more of what it takes than any other Caucasoids.

The Mediterranean is also brunette, but, unlike the stocky Alpine, he is on the average slight of stature. His tendency is to be slight in youth and fat in maturity (this applies to the female also). The race is dolichocephalic (C.I. 72 to 76) with narrow high foreheads unmarked by any protrusion of a supraorbital ridge. Hair is black or dark, usually handsomely wavy and rarely straight. Although luxuriant on the head, it is sparse on the face, limbs, and body. Eyes are brown; the skin is light brown or pale olive. Noses are narrow and high-bridged. Some Britishers are Mediterraneans (especially Welshmen), but the bulk of the Mediterraneans are found in the Iberian Peninsula, Egypt, and Italy, among the Berbers and Arabs of North Africa, and in India and Indonesia.

The mean Nordic (statistically speaking) is low in pigmentation; his hair is blond (from towheaded to light brown); eyes are blue, gray, or hazel. Head form is dolichocephalic; the face is also narrow and angular. Jaws and chin are usually prominent; the nose is narrow and usually high. Hair is sparse on the body, thin on the head, and usually falls out in adult males—a price a man must pay for being a Nordic. In form Nordic hair is straight or wavy but seldom curly. The characteristic Nordic is tall and slender. His body is relatively small, but his legs are long. His chest is usually shallow and flat. Nordics do not have to worry too much about their waists, but there is much evidence in this country that they are not satisfied with themselves as paragons of physical perfection. Numerous males hopefully respond to physical-culture advertisements urging them

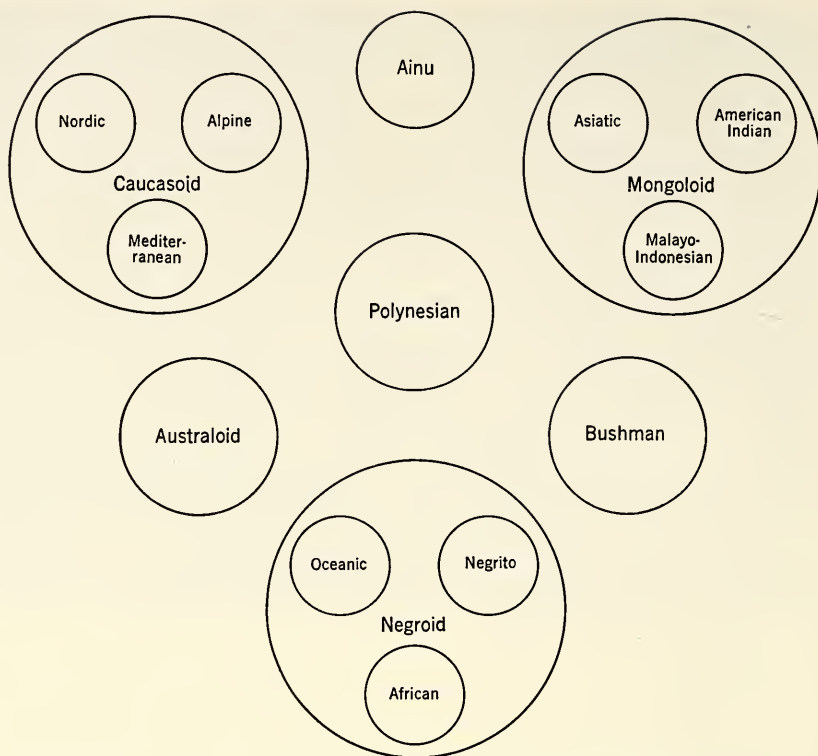


Fig. 8-7. Major races and subraces of mankind. (Modified from Kroeber.)

to develop manly chests with bulging pectoral muscles. The females spend millions of dollars and uncalculated time in attempts to make their hair curly, while both sexes go to great lengths through natural and artificial means to attain the skin color of Mediterraneans.

Nordics predominate in the populations of Scandinavia and the Baltic shores of Germany. Many representatives of this race are found in Britain and its dominions, and among the population of the United States. Nordic enclaves are also found scattered throughout Europe and North Africa.

Mongoloids. The most populous of the present-day races is the Mongoloid. The most outstanding Mongoloid physical trait is the slant eye, more elegantly known to anthropologists as the *internal epicanthic fold*. The infants also have a unique feature in the Mongolian patch: a purplish, triangular area of skin at the base of the spine. Mongoloids are midway between Caucasoids and Negroids in pigmentation. Skin color is brown or yellowish-tan. Eyes are brown or dark-brown, and the hair is as black as the Negro's. It is very coarse and straight, growing long on

the head and shunning the face and body. Most Mongoloid populations are brachycephalic, but there are exceptions among the American Indians and Eskimos. The malars are broad and high while the nose is squat and low-bridged, thus giving most Mongoloids a flat-faced appearance. In stature they are usually short and squat, due mostly to their short legs, since actually their body trunks are fairly long.

The Mongoloids proper are found in north, central, and southeastern Asia. The American Indians are predominantly Mongoloid and are usually classified as such by most anthropologists. However, they most certainly picked up some Negroid and Caucasoid ancestry long, long ago, before they left the Orient, since non-Mongoloid traits are evident in ancient skeletons and in the features of a number of Central and South American groups, as well as in North America. They also lost the B blood-group genes.

The Mongoloid strain is so strong in the majority of the Malayo-Indonesians that the variety deserves to be linked with the Mongoloid race. Yet it is not submerged in it, since a considerable degree of Mediterranean Caucasoid heredity is obvious. Indonesians, the older population found predominantly in the interiors of the islands of the East Indies, are clearly a Mediterranean offshoot derived in all probability from South India. The Malays, who came into Indonesia within the last several thousand years, picked up a strong Mongoloid strain from immigrants who came into Southeast Asia from South China in recent times. They have given the Mongoloid cast to the present Malayo-Indonesian race.

The result, as it is to be seen in these people, is a short, well-formed population averaging hardly more than 5 feet in stature. Skin color is brownish and eyes are brown. They have black hair with a definite reddish strain in it; where Indonesian elements predominate the hair is wavy and the head long; where Malay traits predominate the hair is usually straight and the cephalic index brachy- to mesocephalic.

Negroids. There is no justification for speaking of Negroes as the "colored race," since all races are more or less colored. In fact, if black is an absence of color, Negroes may better be called *colorless*. Admittedly Negroes are the possessors of the darkest pigmentation of all mankind; nevertheless, few Negroes are actually black. Most are dark-brown or brownish-black in skin color. Negro hair is prevailingly black, coarse, and wiry, and tightly curled, kinky, or woolly. Negro heads are with few exceptions long and narrow. The occipital region juts out, as does the lower portion of the face, which in appearance is accentuated by the thick, everted mucous membrane that forms the lips. The Negro nose is broad, with flaring alae and a broad, deeply depressed bridge. The hair on the head, though thick, is short in length, while the male beard is sparse and the body is not given to much hair growth. Stature is medium

tall; the forearm is long; the legs thin (i.e., the calves do not ordinarily develop thick musculature); feet are low-arched.

The African Negro is the variety most familiar in Europe and the Americas. Originally, he inhabited most of Africa south of the Sahara and Egypt, but the seventeenth to nineteenth centuries saw the forced migration of several million Negroes from the West African Sudan to the New World.

East Africa produces a remarkable subvariety of Negro known as the Nilotic, who outdoes the Nordic in growing long legs on a slender short body to achieve tall stature.

The Oceanic Negro is a denizen of the South Seas, who first came to the attention of more than a handful of Americans when our troops made landings in the Solomons, New Hebrides, New Caledonia, and New Guinea. Physically, Oceanic Negroes are generally similar to African Negroes with these notable exceptions: the hair is more often frizzly and bushy;⁹ the supraorbital ridge is pronounced; the nose is prominent, hooked, and depressed at the tip; and the lips are thinner and less everted than the African's.

The pygmy races of the world are all Negroid. This special variety is hence called *Negrito*, or "little Negro." The scattered distribution of these little men indicates great antiquity for the race, which is found in small groups in the depths of the Congo jungle, in the Malay jungles of Southeast Asia, in the interiors of New Guinea and the Philippines, and on the Andaman Islands of the Indian Ocean.

The Negritos are very small, averaging less than 4 feet 9 inches. Their skulls are mesocephalic with bulging foreheads, above which sprouts a tightly spiraled crop of close-growing hair. They vary from blackish- to reddish-brown in skin color, but the hair is consistently black. Their noses are exaggeratedly flat and broad, and their facial prognathism is marked. Their little bodies are lightly muscled, and prone to be potbellied. All in all, the physical endowment of the Negrito is so meager that it almost certainly has handicapped him in his precarious struggle for survival against the more powerfully built races of predatory men (see Fig. 8-1).

Other Races. The South African Bushman is a Negrito with Mongoloid eye form and Mongoloid skin color. His triangular-shaped face with its protruding cheekbones also reflects Mongoloid characteristics. In spite of the absence of any historical data to support the conclusion, these marked Mongoloid traits indicate an ancient Negrito-Mongoloid cross as the origin of the Bushman race. Archaeological evidence proves that Bushmen have been in South Africa for at least 15,000 years.

⁹ This trait led G.I.'s to call the Melanesians "fuzzy-wuzzies." Although Kipling's Fuzzy-wuzzy was a Sudanese African, the G.I. had good precedent. The Papuan got his name from the Malay word meaning "frizzly hair."

The fact that the dark-brown Australoids are called *blackfellows* leads to the easy error of thinking of them as Negroes. They decidedly are not. Their hairiness of head and body and the waviness of their hair indicate a strong probability of archaic Caucasoid relations, such as is predominant in the Ainus.

The Australian aborigine is physically a "low brow." His forehead slopes back from the heaviest supraorbital ridges of any surviving race. His skull is narrow and houses a brain that is notably smaller in volume than that of any other living race. His face juts forward, and his dental arches even more so. His dark-brown eyes are set beside a deeply depressed nasal root, below which the broad thick tip of the nose flares up in a great bulb. The whole face is compressed from symphysis to nasion. The Australoid is neither very short nor very tall. Like the Nordic and Nilotic, he grows a slender short body on a pair of pipestem legs. Australia is the land of retarded zoological oddities, and Australian man is a slightly retarded representative of *Homo sapiens*.

When the first Mongoloid invaders of Japan landed several thousand years ago, they found an unusual people in possession of the islands. These were the primitive Ainus—a people of swarthy "white" skin, abundantly covered with wavy black hair on head, face, and body. Their eyes were light-brown under heavy brow ridges similar to the Australian's. Noses, too, were Australoid, only less so. In stature they were short and thickset. The prehistoric Japanese disputed the possession of the islands with these people, gradually crowding them into the northern recesses and at the same time interbreeding to some extent, so that today some Mongoloid traits crop up in what is otherwise a unique race among all the races of mankind.

When it comes to pass at some future date that miscegenation blends all the races of man into one standardized variety, then that variety may

Population		European	African	Asiatic	American	Australian
Race		Caucasoid	Negroid	Mongoloid	Amerindoid	Australoid
Blood-type gene frequency	A ₁	—	Low	High	Variable	High
	A ₂	Moderate	High	Low	None	None
	B	—	—	High	None	—
	Rh ₁	Moderate	—	—	—	—
	Rh ⁰	—	Very high	—	—	—
	Rh ^z	—	—	Very high	Low	Low
	rh(neg)	High	Moderate	Very low	None	None
	M	Moderate	Moderate	—	Low	Low
	N	Moderate	Moderate	—	High	High
	MN	Moderate	—	Moderate	—	—

Fig. 8-8. Genetic classification of races, based on relative frequencies of certain blood types. (Data from W. C. Boyd, "The Contributions of Genetics to Anthropology.")

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reasonably be expected to look somewhat like the polyglot Polynesians. Such a prospect is genuinely gratifying, for rare is the person who dissents from the judgment that they are a handsome and comely people of great ability. Yet the Polynesians are thoroughly mongrelized; predominantly they are Mediterranean Caucasoid (from South India and akin to the Hindus) mixed with Oceanic Negroes and South Asiatic Mongoloids. The race is very similar to the Malayo-Indonesians except that the stronger Mediterranean heredity gives a wavy form to the hair, elongates the face and body, lightens the skin, and produces a high nose. Negroid traits show up in a tendency to fullness of lips. The dominant round-headedness of the Mongoloid characterizes most Polynesians. Hair grows luxuriantly on the head, but, as is to be expected in a Mediterranean-Mongoloid-Negro mixture, it shuns the face and body.

SUMMARY

Racial differences are the expression of variations in gene distribution in semi-isolated populations. Isolation can be the result of geographic or cultural factors. Traditional physical anthropology classified races according to the relative frequency of physical traits that are externally measurable in populations. Modern genetic anthropology includes counts of gene frequencies of blood types and a limited number of other genetically identifiable characters. This makes it possible to get around the ambiguity caused by phenotypes and by the continuous variability of many of the traits morphologically measured. The findings of gene analysis have not, however, required any marked modification of the traditional major racial groups.

The mechanics of modern Mendelian principles enable us to understand how populations change their genetic composition, so to emerge as new races. The processes are mutation, natural selection, genetic drift, and population mixture.

SELECTED READINGS

- Boyd, W. C.: *Genetics and the Races of Man*. A thoroughgoing book by a pioneer authority in the field.
- : "The Contributions of Genetics to Anthropology," in A. L. Kroeber (ed.), *Anthropology Today*, pp. 488–506. A concise summary of the facts as of 1951.
- Cold Spring Harbor Symposia on Quantitative Biology, Vol. 15: *Origin and Evolution of Man*. Technical papers presented at an institute held in 1950, summarizing recent developments in theory and research by geneticists and physical anthropologists.
- Coon, C. S.: *The Races of Europe*. A detailed and intensive study of the morphological subtypes of the Caucasoid race from Pleistocene times to the present. Not for the casual reader, but a gold mine of information.

- Coon, C. S., S. M. Garn, and J. B. Birdsell: *Races: A Study of Race Formation in Men*. An easily understandable, short examination of selective adaptation and its effects in producing races.
- Dobzhansky, T.: *Genetics and the Origin of Species*. This book provides the basic biology and ideas for much of the recent developments in the modern scientific approach to the study of race.
- Dunn, L. C., and T. Dobzhansky: *Heredity, Race, and Society*. An elementary and popular treatment.
- Hooton, E. A.: *Up from the Ape* (rev. ed.), Part V. Intensive and readable; critical of blood-group racial classifications. Detailed analysis of major and minor racial morphologies.
- Shapiro, H. L.: *Race Mixture*. A genuinely authoritative treatment of the findings of science on the results of racial interbreeding.
- UNESCO: *The Race Concept*. A balanced evaluation of the idea of race; what it is and what it is not.

CHAPTER 9. Race and Cultural Capacity

THE QUESTION of whether some races are superior or inferior to others raises the deeper question, "Superior in what?" Nilotic Negroes are obviously superior in stature to Negritos; Nordics are obviously superior in average stature to Malayo-Indonesians. This, however, is not the kind of superiority on which the "racial issue" turns. The alleged superiority or inferiority is a functional one. Do some races have superior capacity for cultural attainment? Are they inherently more intelligent? Do they have an inherently greater capacity for leadership and domination, which justifies their control and exploitation of allegedly less fortunately endowed races?

Racism is the doctrine that assumes as self-evident the proposition that "one group has the stigmata of superiority and the other has those of inferiority."¹ Science presupposes that superiority and inferiority must be determined by careful sifting of all the evidence that can be marshaled on the subject. Prejudiced opinion and demagoguery do not provide acceptable bases for determining the facts. The sociologist Edward A. Ross put it tersely when he penned the judgment, "'Race' is the cheap explanation tyros offered for any collective trait that they are too stupid or too lazy [and we would add, too intellectually dishonest] to trace to its origin in the physical environment, the social environment, or historical conditions."² This declaration was long anticipated by the economist John Stuart Mill when he wrote, "Of all vulgar modes of escaping from the consideration of the effect of social and moral influences on the human mind, the most vulgar is that of attributing the diversities of conduct and character to inherent natural differences."³

¹ R. F. Benedict, *Race: Science and Politics*, p. 5.

² E. A. Ross, *Social Psychology*, p. 3.

³ J. S. Mill, *Principles of Political Economy*, Vol. 1, p. 390.

To what conclusions does the nonvulgar anthropological consideration of the facts of physical anthropology, race psychology, anthropogeography, sociology, and culture history lead?

ANATOMICAL SUPERIORITY

First, are some races more advanced in biological evolution than others? A positive answer would indicate general functional superiority. *Homo sapiens* is unquestionably more advanced than Java man, and there can be no gainsaying his functional superiority. Further, contemporary *Homo sapiens* is undoubtedly more advanced than was the classical *Homo neanderthalensis*, a fact that probably contributed to the extinction of Neanderthal man. However, all living races are members of the *Homo sapiens* group, and functional differences between the varieties of *Homo sapiens* are not so obvious.

Physical anthropologists are in general agreement that the Australoid race is retarded in biological evolution and physically more primitive than other races. Yet the question of its intellectual inferiority is undetermined. True, the Australoid possesses one of the world's rudest cultures, but, because of his isolated location, this point does not prove inherent incapacity to do better. The psychologist Porteus attempted a serious evaluation of native Australian endowment by means of a large variety of tests and observations.⁴ His psychological results are utterly inconclusive, except to demonstrate the power of cultural influences in causing differential behavior. For instance, the solution of problems by the individual acting alone is the basis of most psychological tests. Porteus found to his dismay that it is difficult to get Australians even to attempt to solve a problem alone, since they are used to acting and thinking in concert. All problems in tribal life are debated and worked out by the council of elders until a unanimous decision is reached. The natives even felt that Porteus should have helped them solve the tests, especially when in one group they had made him a tribal member! Speed has no meaning to the Australian, whose skill in the hunt demands "sustained muscular control, and undivided attention, an extreme sensory wariness, inexhaustible *patience and concentration of purpose*."⁵ Yet speed is an important factor in many intelligence tests. Hence, the results of such tests, which naturally show the Australian up poorly, have no validity. There can be no doubt that tests designed to take full account of skills that are important in the native Australian environment would measure differences between individual natives with reasonable significance. Equally likely is the probabil-

⁴ S. D. Porteus, *The Psychology of a Primitive People*.

⁵ *Ibid.*, p. 64. Italics are the author's.

ity that Australians would obtain a higher rating than whites if both were subjected to those tests. And such results would be just as unfair to the whites as the present tests are to the Australians.

When we return to matters of physical anthropology, we find prejudiced laymen likening Japanese to monkeys and Negroes to apes. Both comparisons lead to the inference of evolutionary backwardness and inherent inferiority. Southern gentlemen argued in the ante-bellum debates on slavery that Negroes were physically and spiritually subhuman, devoid of souls, and therefore not subject to the moral injunction against enslavement of human beings. Some people still argue that the body proportions, facial projection, and flat broad noses of the Negroes put them nearer to the apes in physical development; that these features are prima-facie evidence of their inferiority.

This proves nothing at all. A comparison of the primary races will quickly show why.

	MOST SIMIANLIKE	LESS SIMIAN- LIKE	LEAST SIMIANLIKE
Cephalic index	Mongoloid	Caucasoid	Negroid
Cranial capacity	Negroid	.....	Mongoloid, Caucasoid
Eye color	Negroid, Mongoloid	.....	Caucasoid
Nasal index	Negroid	Mongoloid	Caucasoid
Hair form	Mongoloid	Caucasoid	Negroid
Hair length	Caucasoid, Mongoloid	.....	Negroid
Body hair	Caucasoid	.....	Negroid, Mongoloid
Lip form	Mongoloid	Caucasoid	Negroid
Lip color	Mongoloid	Caucasoid	Negroid
Facial prognathism . . .	Negroid	Caucasoid	Mongoloid
Eye form	Caucasoid, Negroid	.....	Mongoloid

This is by no means an adequate balance sheet; there are innumerable detailed features of anatomy that could be listed. All we have undertaken to demonstrate is that with respect to the superficial traits on which popular judgment rests, no race comes out ahead of the others. Negroes are most "apelike" in five of the selected traits, whereas Caucasoids come closest in three. But Negroids are least "apelike" in six of the traits and Caucasoids are least in only three. The whole argument turns out to be puerile.

Attempts have been made to correlate racial intelligence with average brain size. It is a fundamental fact of evolution that brain size and complexity increase relatively with each successive emergent animal form. Functional adaptability increases with larger and more complex brains, as we compare one genus with another. Within the Caucasoid race, sev-

eral methodologically sound studies correlating brain size with school and university grades and IQ have been made. Klineberg, on consideration of these studies concludes, "In general there appears to be an exceedingly small, though positive correlation between head size and intelligence."⁶ However, judicious interpretation explains this difference as due to good conditions of nurture, which produce brighter people as well as larger stature, which in turn is consistently correlated with larger brains. If this be true, the correlation between brain size and intelligence is due to external factors, not inheritance.

When the problem of brain size as related to racial intelligence is tested, the results are wholly inconclusive. Australoids, Pygmies, and Negroids have smaller average brains than do Mongoloids and Caucasoids. In the case of the Pygmies it is a function of small body size. Racists have seized on the generally smaller brain size of Negroids as evidence of inferiority. But on the basis of such reasoning we should have to acknowledge the large-brained Eskimos as our intellectual superiors and include the Negro Zulie and AmaXhosa along with them. The extinct and primitive Neandertal would also rate as our equal if not our superior.

In the case of the Neandertal man, anatomical evidence indicates qualitative inferiority of the brain, because of the relative smallness of the frontal lobe and the simplicity of convolutions. It has not yet been possible to establish similar deficiencies for any of the living races.

Another popular basis for assumption of racial superiority is body odor. How often has one heard the exclamation in defense of discrimination against Negroes, "They smell so!" There is little doubt that Negro perspiration has a different odor than that of Caucasoids. There is equally strong evidence that the body odor of whites is sharply distinguishable by Chinese and their water buffaloes and dogs. These animals are violently upset by the scent of whites, and the Chinese find our smell quite distasteful. However, they are too mannerly to admit it except in closest confidence. We know little or nothing about the biochemistry of human perspiration. We do not know what produces diversity of body odor. Diet is definitely a factor, but there is a good possibility that inherently different organic functions are also important.

A tentative conclusion to the effect that distinctive body odors may be inherent racial traits does not carry a correlative one that a particular odor is superior or inferior to another. We are merely prone to accept our own body odor, because we are used to it. But even we react obsessively to the unpleasantness of our own aroma, if we are to judge by popular response to soap advertising and the flourishing sale of perfumes.

⁶ O. H. Klineberg, *Race Differences*, p. 80.

PSYCHOLOGICAL SUPERIORITY

The really crucial issue is whether the mental processes and psychological aptitudes of different races are inherently different. Then follows the problem, if they are different, is it possible to determine whether the psychological traits of some races are inferior to those of others? Animal breeders and fanciers are thoroughly familiar with inherent differences in temperament, physiological function, and learning capacities in different breeds or varieties within the same species of animal. It must be recognized that a similar possibility exists in the case of the human animal. Inasmuch as the nervous system of man is a part of his biological system, it is quite possible that inherent differences in the structure and functioning of the nervous systems of different races do exist.

There are three possible approaches to the scientific solution of this problem: (1) Neurological analysis of the anatomy and physiochemical functioning of the nervous systems of different races, which, unfortunately, calls for a refinement of laboratory technique far beyond that yet developed by neurologists. (2) Controlled psychological experimentation, in which the cultural and environmental factors are held constant or eliminated, so that the inherent functional capacities of different races may be measured. (3) Anthropological analysis of the cultural accomplishments of different races.

RACE PSYCHOLOGY

The last four decades have witnessed a flurry of activity among experimental psychologists attempting to measure inherent race differences. Hundreds of experiments of varying worth have been undertaken. Many of the earlier ones have been analyzed and summarized in the books of Garth⁷ and Klineberg.⁸

Tremendous interest was first raised by the published results obtained from the Army alpha and beta tests of the First World War, and subsequently hundreds of tests of various races and nationalities were undertaken during the 1920s. The results of these tests gave Negroids and Mongoloids definitely lower ratings than Caucasoids. By the Binet tests, the Negro IQ averages around 99, American Indian 75.3, Chinese and Japanese 99, and Caucasoids 100. Since Terman, who had the prestige of authority behind him, had expressed the opinion that the Binet scale is a true test of native intelligence, the inferiority of Negroes and other non-Caucasoid races then seemed to be scientifically proved. At last, social

⁷ T. E. Garth, *Race Psychology*.

⁸ Klineberg, *op. cit.*

discrimination justified by racial superiority, in the eyes of its protagonists, seemed to have an irrefutable *raison d'être*.

More experience with the tests has sobered the psychologists, however. By their own work they have demonstrated that emotional maladjustment, amount of schooling, language facility, and kinds of attitudes (motivation) toward the testing process can drastically alter the results of the tests. Criticism from anthropologists has evoked a realization that tests designed on the basis of one type of cultural experience are not valid when applied to persons trained under markedly different cultures. Our comments on Porteus's experience with Australians illustrated this. Intelligence and aptitude tests measure innate ability plus experience, modified by emotional and cultural factors.

The first caution signs against uncritical use of the Army results in racial interpretation of differential intelligence were raised in Yerkes's original presentation of the data.⁹ It was shown that Negroes from the North rated much higher than Negroes from the South. The Army testers observed that this fact could be due to better economic, social, and educational opportunities for Negroes in the North. They thus gave implicit recognition to the effect of environment on intelligence performance. They also noted that the difference could be taken to mean that naturally intelligent Negroes leave the South (selective migration). It was further noted that Negroes from some Northern states rated higher median scores than did the white draftees from some Southern states. Since Northern whites obtained higher intelligence grades than Southern whites, the inference was rather clear that the better general educational and economic environment of the North was the crucial element.

These figures created no public furor until Benedict and Weltfish wrote a little popular pamphlet on race a quarter of a century later.¹⁰ When this pamphlet was selected for reading by the soldiers of the Second World War, the Kentucky chairman of the House Military Affairs Committee rose in wrath against its "insult" to white supremacy and won for it thereby a wide popular circulation. Such are the consequences of censorship.

The Army testers had left open the question as to whether the high performance of Northern Negroes was due to their innate capacity or to the more favorable environment of the North. The problem was tackled by Klineberg in the 1930s. The first step was to obtain the school records of Negro children in Charleston, Nashville, and Birmingham. The per-

⁹ R. M. Yerkes (ed.), *Psychological Examining in the U.S. Army* (Memoirs of the National Academy of Sciences, Vol. 15, 1921).

¹⁰ R. F. Benedict and G. Weltfish. *The Races of Mankind*.

centile rankings of children who were known to have left for the North were compared with those who stayed in the South. Klineberg found that "The migrants as a whole were almost exactly at the average of the whole Negro school population in these three Southern cities."¹¹

Next Klineberg and his assistants measured 3,000 Southern-born Negro children in the schools of New York City. Five different standard intelligence and performance tests were used. It was found that the IQ and N.I.T. ratings of new arrivals (less than one year in New York) were lowest, and that these ratings improved in regular progression for each additional year of residence in New York, until the same level was reached as is shown by the Negro children born in the North. The factor of mixed ancestry was properly taken into account, and a check was made to determine that the more recent arrivals were not of inferior rating in the South.

The Klineberg studies demonstrate conclusively that the lower IQ ratings of Southern Negroes are in large measure an IQ *retardation* caused by inadequate schooling and a cultural environment different from that presupposed by the standard intelligence tests. Modification of education and cultural environment in the direction of that enjoyed by whites, in the case of New York City Negroes, narrows the gap between the IQ averages of white and Negro children. The deleterious effects of separate and unequal educational and cultural opportunities, against which the United States Supreme Court antisegregation decision of 1954 is directed, are clearly evident. The gap is not wholly closed, for Klineberg found that twelve-year-old New York Negro school children are still six to eighteen months lower in "mental age" than are white children of the same chronological age.

It remains perfectly true that the bulk of intelligence tests give American whites higher median IQ ratings than American Negroes.¹² But it is just as true that

The widely accepted belief in the hereditary group differences in intelligence which the test results seem to demonstrate must for the present be regarded as unproved. If intellectual differences between racial and social groups do exist (and this point is still debatable) the testing technique is nevertheless incapable of proving their existence.¹³

The reason lies in the pervasive influence of very subtle cultural differences that the tests cannot control.

¹¹ Klineberg, *op. cit.*, p. 184.

¹² H. E. Garrett, "Negro-White Differences in Mental Ability in the United States" (*The Scientific Monthly*, Vol. 65, 1947), pp. 329-333.

¹³ O. H. Klineberg, "Mental Tests" (*Encyclopedia of the Social Sciences*, Vol. 10 1933), p. 326.

In summary, the evidence from psychology is largely negative. It demonstrates that (1) so-called "intelligence tests" measure innate skill plus cultural experience. No test has yet been evolved that can eliminate the cultural factor, and differential ratings of the various races in intelligence tests must be critically evaluated; (2) aptitude tests do reveal racial differentials in visual, motor, and vocal skills, but these too are subject to cultural influences that have not been eliminated in tests and measurements; and (3) many skills of intelligence and aptitude definitely change when the cultural environment changes.

The whole result of scientific race psychology is to throw the explanation of significant behavior as between people of different races over into the field of cultural experience. The findings of psychology harmonize with those of anthropology and history, which we shall now treat simultaneously.

RACE AND CULTURE HISTORY

It is the opinion of anthropologists that all races except, perhaps, the Australian aborigines are equally capable of cultural development and that culture operates independently of racial heredity. How then, it is often asked, can it be that some races are culturally more advanced than others? How does one account for the fact that the Negroids never attained civilization until it was brought to them by Caucasoids? Is it not true that the highest modern civilizations have been developed by the European whites?

There are three principles to be grasped in formulating the answers to these questions: (1) Although all cultures are fundamentally similar in their nuclear cores, the range of cultural variability as manifest by human societies is truly remarkable. Limits to the range of culture are imposed by the physical nature of man. These limits are so basic and so generalized, however, that they are common to all races of man. The forms of variation are the result of the processes of culture growth, not of racial predisposition. (2) The behavior and cultural ingenuity of different peoples within any given race are so variable that obviously the racial factor can be of little importance. (3) The same people may exhibit astounding cultural energy at one period of their history and be almost wholly devoid of it at another. Peoples who have been culturally quiescent for centuries suddenly burst into a veritable fury of cultural development without any determinable change in racial composition. The Japanese are the most spectacular example in modern times.

In European history the facts confound the racists again and again. Cicero said of the Britons, "Do not obtain your slaves from the Britons, for the Britons are so stupid and so dull that they are not fit to be slaves."

Yet what was to be the relative position of Cicero's descendants and the Britons 2,000 years later? The Romans looked upon the Germans as inherently incapable of high civilization, as many Caucasoids still look upon Africans and Asiatics. The error is compounded, since the non-Caucasoid peoples of Asia and Africa have in the past produced high cultures of considerable richness. It is easy for North Europeans and their descendants to forget how late they came to the forefront of civilization and cultural development. The centers of cultural invention did not shift to North Europe until after the Renaissance, only 500 years ago. During the Dark Ages, the Maya Indians of Central America showed greater cultural accomplishments than the European whites.

The history of the Uto-Aztecs is also pertinent. The Aztecs, Comanches, and Shoshones are all Indians who speak similar languages indicative of a common historical background. They are racially quite similar, and 600 years ago they stood as lowly hunters and gatherers at the bottom of the cultural scale, living in the western deserts of North America and possessing a meager cultural equipment. Historical events radically altered their basic characters and cultural development.

The Aztecs wandered southward until they settled in what is now Central Mexico in the midst of several high cultures that had been greatly influenced by the Mayan tradition. In A.D. 1325 they founded Tenochtitlan (the present Mexico City), and 200 years later they were overlords of the land: maize growers, road builders, astronomers, artists, and possessors of a city with public buildings of cut stone so magnificent that stout Cortez cried out that in all Andalusia there was nothing to compare with its glory.

The Comanches wandered into the southwestern plains at a somewhat later date. There they acquired Spanish horses and guns and came into contact with the warlike tradition of the Plains tribes. They became truculent, nomadic robbers and fighters, so violent that to this day the plainsman's simile, "as wild as a Comanche," is still heard in the West.

The Shoshones, who retain the attitudes and culture once shared with the Comanches, obtained neither guns nor horses. They were regularly mauled by the Blackfeet, who had guns and horses, so they timidly hid out in the desert—peaceable, because they dared not make war. They developed a strong inferiority complex, and they are the only Indians the author has ever worked with who welcomed the coming of the whites. "If the white man had not come, there would be no Indians left," they say. By Indians, they mean themselves.

As circumstances found them, the Aztecs and Comanches had become definitely superior people, the Shoshones miserable by any man's count. But race was a constant element. The accidents of culture history had frowned upon the hapless Shoshones.

The problem of what causes cultural spurts is a complex and difficult

one that must be analyzed in terms of cultural process, to which the last section of this book is devoted. Outstanding among the multitude of factors is cross-fertilization of cultures, the stimulation of new ideas and new ways of doing. Isolated peoples always stagnate, be they Mongoloid, Negroid, or Caucasoid. But the bent of the culture is important, too—a backward-looking, ancestor-worshipping culture is not readily amenable to change and further development. The physical environment is also influential. Each of these can be shown to be active factors. But since it cannot be shown that races differ in the possession of hereditary mentality and capacities, because the performance of different groups within a single race ranges from high to low and because the performance of a single racial group varies so markedly through time, it becomes evident that race per se is of small moment in cultural achievement.

SUMMARY

The present view of anthropology in regard to race may be summed up in these terms: (1) It must be acknowledged that there is the possibility of innate physiological and psychological differences between racial groups; (2) however, no such differences have been scientifically isolated and unequivocally established; (3) and such differences as are indicated are so slight in their apparent effect on human behavior that, when compared to the proved influence of culture in determining the action of men, race differences are of such relative insignificance as to be of no functional importance. Culture, not race, is the great mold of human society.

SELECTED READINGS

- Count, E. W.: *This Is Race*. A comprehensive selection of writings on race from all parts of the world.
- Klineberg, O. H.: *Race Differences*. An eminently sound appraisal of race psychology and the interpretation of psychological testing of races.
- Myrdal, G. S.: *An American Dilemma*. As close to a definitive study of the effect of culture on racial behavior in the United States, ca. 1940, as it is possible to come. The work is the product of the combined efforts of a special team of able social scientists.

Part Four

PRIMITIVE CULTURE

A. CULTURE AND SOCIETY



(Photograph by John Collier, Jr.)

CHAPTER 10. The Nature of Culture

THROUGHOUT the previous chapters we have been tracing how man came into being in prehistoric times. We have seen how he painstakingly developed increasingly complex cultures in his efforts to modify the conditions of living that confronted him. It has also been indicated that the ability to produce culture is shared in equal degree by all the living races of mankind.

Our understanding of human cultures would be quite limited, however, if our knowledge were confined to what we can learn from the archaeological record of prehistoric men. House sites can give us an indication of the size of prehistoric social groupings; bones, seeds, and tools recovered from refuse heaps and storage pits provide quite an accurate idea of the food-consuming habits of long-vanished peoples. Nevertheless, they can hardly reveal much about the day-to-day customs and the subtle qualities of attitude and belief that are the true breath and life of culture.

To understand these we must turn to living peoples whose acts can be observed, whose languages we can hear spoken, and who can tell us as best they are able what they think and why they believe and behave as they do.

Culture, as defined in the opening chapter of this book, is the integrated system of learned behavior patterns characteristic of the members of a society. It constitutes the life-way of any given social group.

Culture is a uniquely human phenomenon. Among all the creatures of the animal kingdom man stands alone in his capacity to create and sustain culture.

The human capacity for culture rests in man's complex and plastic nervous system. It takes brains to produce culture, and for all his stupidities, man alone has crossed the critical threshold in the evolutionary development of a central nervous system equal to the task of creating

culture. For culture is created in the mind of man. Every item of culture is a product of invention; a way of behaving is introduced that was not predetermined in the genetic organization of the human animal. It is transmitted to other members of the group and becomes a standardized form of behavior.

LEARNED BEHAVIOR

By definition cultural behavior is learned behavior. It is essential to the concept of culture that instincts, innate reflexes, and any other biologically predetermined forms of behavior be ruled out. Culture is, therefore, acquired behavior. But it is as much a part of the natural universe as are the stars in the heavens, for it is a natural product of man's activities, and man is part of nature.

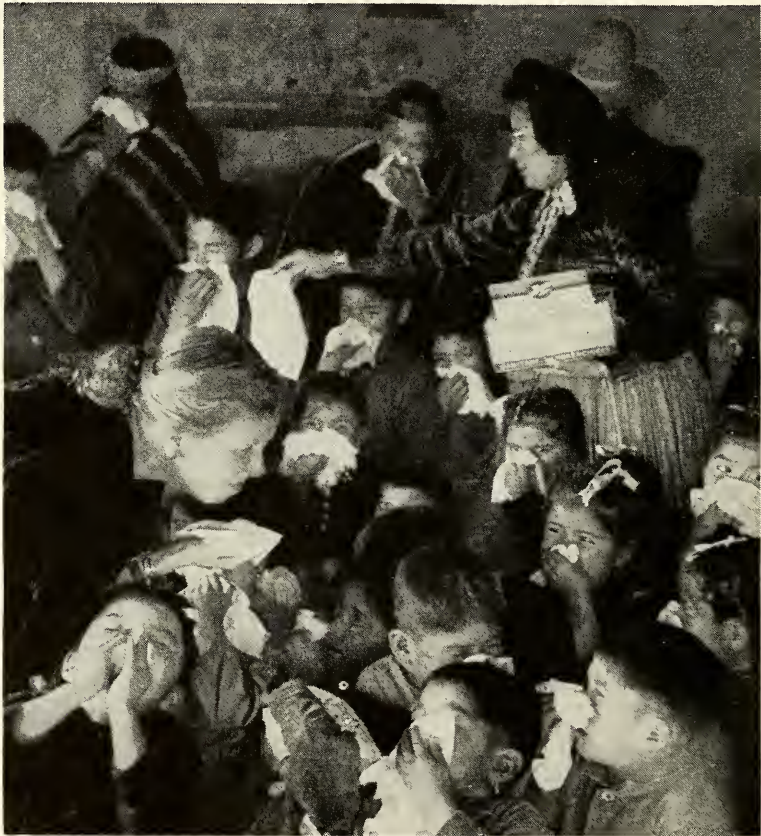


Fig. 10-1. The transmission of culture and the standardization of behavior. Navahos learning to use handkerchiefs. (*Leonard McCombe, Harvard Value Study, Harvard University.*)

That cultural behavior is learned behavior may be demonstrated by answering the question, "What would happen if a collection of babies were cut off from all adult care, training, and supervision?" The answer is, of course, "They would die." Therefore, we must modify our question and put it in this form, "What would happen if a collection of babies could be fed and protected without supervision, training, or any form of contact with adults? Would they manifest any of the special traits of behavior that were characteristic of their parents?"

Our answer cannot be based upon direct empirical observation; legend, mythology, and the testimony of honorable men notwithstanding, neither wolves nor jailers nor scientific experimenters have ever set up such a situation under conditions of control or observation that meet the elementary canons of scientific acceptability.¹ But enough is known of infant physiology, learning, and psychology to justify an answer in unequivocal terms. Assuming the survival of the infants, they would eat, drink, defecate, urinate, and gurgle and cry. These would be direct responses to basic biological drives. But what they would eat, when they would eat, and how they would eat would not be according to the tastes and palates of any group of men we now know. It is quite unlikely that they would cook their food. Presumably they would sooner or later get up on their hind legs, and even before adolescence they would experiment in mating without benefit of incest tabus or any preferred approaches of courtship. They would communicate emotional states through gesture and sounds. But they would be devoid of language, utensils, fire, arts, religion, government, and all the other features of life that distinguish man among the animals. Left solely to their own instinctive devices the children of men would remain undeveloped brutes, which is something less than brats.

In spite of their shortcomings, however, these hapless children would enjoy a social life. They would constitute not only an animal aggregation but also an animal society. It is quite probable, however, because they are human beings, that they would very quickly begin the accumulation of incipient culture.

Many animals in addition to man experience social life and even possess social organization. Ant society has long been recognized for its well-delineated division of labor among drones, workers, fighters, males, females, and queen. The organization of the colony with its living quarters and storage rooms for eggs presents the picture of a well-ordered society. The ants interact among each other in an integrated sustained set of relationships. These relationships are preset in the genetic organization of

¹ For a sarcastic debunking of the wolf-child stories, B. Evans, *The Natural History of Nonsense*, is good reading.

the ants. So far as is known, little if any of their behavior is behavior learned from adult ants. If eggs are hatched without any adult ants present, they produce a host of new ants, who, when they attain maturity, reenact every single aspect of all of the forms of social life that have characterized their species for untold generations.

On the other hand, we would be blessing ourselves with undue credit if we denied *all* culture-creating capacity to all subhuman creatures.

Monkeys and apes are quite capable of solving a number of problems posed for them by experimenters. Köhler's early experiments are now endowed with classic prestige.² Who is not now familiar with his demonstrations of the ingenuity and intelligence of chimpanzees in joining sticks, piling boxes, untwisting ropes, and picking locks in order to reach a banana? Yerkes and others of Köhler's successors have worked out even more complicated tests of the chimp's discriminatory powers and retentive memory.³ The apes show considerable intelligence and inventiveness. What is more, they are quite definitely capable of learning from each other through direct imitation. Apes ape each other.

When one of a group of experimental apes accidentally jabbed the end of a pole into the ground and found to his immense delight that he could hoist himself skyward, all the other members of the colony were soon searching for sticks; pole vaulting was the rage. Another discovered that by scattering bread outside the bars of his cage he could lure unwary yard chickens in close, while he lurked with a stick in his hand with which to jab them. Annoying the chickens then became the current sport of the group. The alarmed squawks of the hens provided rich simian diversion. These and other tricks were discovered by the apes without help from psychologists. When they spread among the group, they had for the time being all the qualities of customs. But, alas, when interest wore off and enthusiasm waned, as it always did after a few days or weeks, each practice was forgotten never to be done again. Their destiny was that of fads; they could not endure to become customs. The permanency of culture was lacking. Apes can spread a pattern of learned behavior through direct imitation, but they cannot talk about it, nor can an older ape tell a younger ape how things were done when he was young. Apes fall short of real culture, because although they can make rudimentary inventions and although their brains are essentially similar to man's, they do not have brains enough to work out and retain complex interrelations between things, and, above all, they are absolutely incapable of symbolizing things and relationships in speech.

² W. Köhler, *The Mentality of Apes*.

³ Effectively summarized by E. A. Hooton in *Man's Poor Relations*, pp. 42-56.

Culture exists in and through symbolic communication. Because of this, man still remains the sole producer of genuine culture. This is merely another way of saying that man alone can talk, and without speech there can be no culture.

SYMBOLISM AND CULTURE

Many of the elemental behavior patterns that make up a culture may be learned directly without reliance on symbolic content. This may be seen in the behavior of the deaf-mute infant who learns well enough to dress, tie its shoes, blow its nose, handle knife, fork, and spoon, without access to the use of language and without the capacity to assimilate any of the more complex ideas that other children get at an early age. It is equally obvious just how much of its society's culture it is shut off from. It can rarely share the thoughts, beliefs, attitudes, nor acquire the reasoning skills of its people except on the crudest level. It will know little of its people's gods, their music, nor their folk tales and legends, their star lore, their magic, or science. It will be barred from full comprehension of its people's kinship system, their law, their politics, and their rules of inheritance and trade. It may learn to paint through imitation, but it will know little of the meanings of the designs it copies nor the significance of the colors it uses. All these manifestations of culture, and more, will be beyond it, for its infirmity denies it the one truly distinctive attribute of man—language, "the purely human and non-instinctive method of communicating ideas, emotions, and desires by means of a system of voluntarily produced symbols."⁴

The clue to understanding the nature of language, that cultural product without which there is no more than limited culture, is to realize that language is the major device for *symbolizing*. A sound may be no more than a noise, a disturbance of the air that stimulates no discernible response in man or beast. A sound may also be a *signal* that evokes a response, like the whistle that calls a dog to his master's side. On a higher level a sound may be a *symbol*, which is a signal or sign that stands for something. It has *meaning*. Words are vocal symbols. Languages are arbitrary systems of vocal symbolism, to which civilized cultures have also added visual symbols: writing. Symbols may also be tactile, as the convention of putting a piece of sandpaper on a bottle, which, when felt in the dark, means "poison."

People take symbolizing so much for granted that most of us find it hard to understand its significance. Nevertheless, the fact remains, and

⁴ E. Sapir, *Language*, p. 7.

must be grasped, that, "the affairs of man are conducted by our own, man-made rules and according to man-made theories. Man's achievements rest upon the use of symbols."⁵

Pavlov's dogs learned to respond to a bell-ring instead of the taste and sight of meat by immediately producing a flow of saliva. The bell became a signal evoking a salivary response. Perhaps it was also an elementary symbol for the dog, in that the sound came to stand for eating and evoked some of the sensations of eating; it could have low-level meaning for him.

Compare, however, the human context of the dinner bell, and the quality of high-level symbolizing becomes clearer. At birth a ringing bell is just as meaningless a sound for babies as for puppies. If a baby happens to grow up in a primitive society and does not hear a bell until a ship from the civilized world reaches his shores, it will still be a meaningless sound for him on first hearing. Suppose, on the other hand, he has grown up to be an English or American factory worker. He has learned that when a particular bell sounds at high noon, this is the signal to knock off work and open the lunch box. But he has also learned a good deal more than this. At 11:40 he is bored with his work and begins to feel hungry. He mutters to the man at the next bench, "When is that bell going to ring?" He may receive the reply, "I don't know. But now that you mention it, just thinking about it makes me hungry." It is not the sound of the bell that makes the second worker suddenly aware of the rhythmic contraction of his stomach muscles or causes him to swallow the excess saliva that has suddenly been released. It is the symbolic words *bell* and *ring*. Other bells in other contexts, such as church bells, will have quite different symbolic connotations. They can become so full of meanings that in the Italian countryside the bells of a village symbolize village loyalty and village identity, called *campanellismo*. The village ties extend as far as the village bells can be heard. When the bells are silenced, there is the deep social sickness so feelingly portrayed in *A Bell for Adano* by John Hersey.

So it is that almost all aspects of a culture come to be symbolically identified and symbolically transmitted from the old members of any society to its new members. So it is that the very way in which the members of a society see and understand the world in which they live is shaped by the symbol system that makes up their culture.

THE GROUP AND CULTURE

A culture is always carried and made manifest by a group. No individual ever knows or exhibits all of its traits. Yet, culture and the society are

⁵ A. Korzybski, *Science and Sanity*, p. 76.

not one. A society is people. A culture consists not of people but of ways of acting.

A society, however, is more than just an aggregation of people. It is bound together by an awareness of belonging together, a sense of social and economic interdependence, by the sentiments of consciousness of kind and of common interests. It has *esprit de corps*. Familiarity with animal societies shows us that natural herds and flocks have these same qualities on an instinctual basis. What distinguishes the human society is that it has these qualities *plus* cultural control and direction of the behavior of its members.

A society is a permanent population of people acting in accordance with its culture.

THE IMPERATIVE OF SELECTION

Culture consists of a multitude of behaviors, or better, behavior patterns. Some of them are *overt*. That is to say, they involve external activities that can be seen, felt, smelled, tasted, or heard. Some of them are *covert*. That is, they are internal actions which cannot be directly perceived from without. They are usually complex nervous patterns that predispose the individual to specific kinds of acts. They are commonly called *attitudes*, *beliefs*, or *habits* of thinking and emotion. They can be studied only as they express themselves in overt behavior, either in gross movement, or symbolically in speech. Basically, then, all behaviors are initially covert in that they lie hidden in the neural pathways of our nervous systems. Conversely, it is only as they are overtly expressed that we know of their existence.

No society ever exhibits in the behavior of its members *all* the behaviors that we now know human beings are capable of. Realization of this fact is one of the great lessons driven home by modern anthropology. Many people think that what they do is *ipso facto* an expression of human nature. Little do they realize that other human beings have found quite different ways of doing the same thing. Or perhaps they do not do it at all. In the succeeding chapters of this book the main varieties of known culture patterns will be examined. The range of variability will be surprisingly wide, for, "Anthropology holds up a great mirror to man and lets him look at himself in his infinite variety."⁶ The variety of his known behavior is not really infinite, but it is impressively broad. The nature of man's bodily organs and the complexity of his nervous system are such

⁶ C. Kluckhohn, *Mirror for Man*, p. 11.

that his behavior is the most pliable and adaptable of any living creature.⁷

As each society builds its culture through the ages, it ignores and rejects many of the potential behavior patterns that men are capable of. In part, of course, the majority of the potential ways remained undiscovered by most of the isolated societies of the past, and hence were not available for inclusion in their cultures. Yet even if they had been available, many of them would necessarily have been excluded. Social behavior must be predictable. Expectancies must be met, if men are to gauge their actions in terms of past experience. Men in society are men interacting. If all were liable to pop off in any one of the multitudes of behaviors human beings are capable of, the result would be bedlam and disaster. Society is possible only in terms of limiting order.

Not only is limitation of ways of behaving a social necessity; it is also an individual necessity. Experimental animal psychology as well as psychiatry have demonstrated that habit formation and habitual rewarding of psychological drives are necessary for individual mental health.⁸ Behavior must be regularized to a high degree for effective functioning of personality.

Further, many behavior patterns are mutually contradictory and inherently incompatible. A people cannot enjoy free sexual license and at the same time practice celibacy. Nor has anyone discovered how to eat his cake and have it, too. This goes for thousands of other aspects of culture.

This is the basis of the *imperative of selection* as summed up by Ruth Benedict, "The culture pattern of any civilization makes use of a certain segment of the great arc of potential human purposes and motivations. . . . The great arc along which all possible human behaviours are distributed is far too immense and too full of contradictions for any one culture to utilize even any considerable portion of it. Selection is the first requirement."⁹

The Integration of Culture. The selection of the customs that go to make up a culture is never wholly random and haphazard. Selection is made with reference to a set of deep-lying assumptions, or postulates, about the nature of the external world and the nature of man himself. They are assumptions as to the nature of existence, called *existential postulates*. There are also deep-lying assumptions about whether things or acts are good and to be sought after, or bad and to be rejected. These are called *normative postulates* or values. Both existential and normative

⁷ See J. P. Gillin, "Custom and the Range of Human Response" (*Character and Personality*, Vol. 13, 1944), pp. 101-134; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 87-99.

⁸ S. J. H. Masserman, *Principles of Dynamic Psychiatry*, pp. 126-129.

⁹ R. F. Benedict, *Patterns of Culture*, p. 237.

postulates are the reference points that color a people's view of things, giving them their orientation toward the world around them and toward each other. The basic postulates provide the frame of reference for a people's *Weltanschauung*, or world view.

The basic assumptions at the bottom of a culture are necessarily consistent among themselves, although rarely wholly so. If a society is to survive, the gears of its culture must mesh, even though they may growl and grind.

In selecting its customs for day-to-day living, even in little things, the society chooses those ways that accord with its thinking and predilections—ways that fit its basic postulates as to the nature of things and what is desirable and what is not. If these ways are consistent with the basic postulates, and these in turn are consistent one with the other, then integration is achieved. The culture is then a harmonious working whole.

To recapitulate:

1. Every culture represents a limited selection of behavior patterns from the total of human potentialities, individual and collective.

2. The selection tends to be made in accordance with certain postulates (dominant assumptions and values) basic to culture.

3. It follows that every culture exemplifies a more or less complete and coherent pattern, structure, or system of actions and relationships.

"The quality of a society," as observed by Otis Lee, "will vary with the quality of its basic values . . . with their suitability to its needs and circumstances, and with the consistency and thoroughness with which they are worked out."¹⁰

Some of the basic postulates of a culture may be explicitly stated by the people who hold them. Others are so taken for granted, or else the people are so unused to reflecting about their beliefs, that they are not themselves able to state them. In anthropology, when the social scientist is thoroughly familiar with the observed behavior of a society in all its aspects, he may generalize the principles that underlie the behavior; thus he identifies the postulates for them. It is like the linguist who analyzes a primitive language and formulates the rules and principles of grammar. The people who speak the tongue know only that this form is right and that is not, without being able to express the principles in so many words.

Examples of two different sets of postulates may be taken from the culture of the Ifugao, an anarchistic tribe of head-hunting rice growers who live in northern Luzon in the Philippine Islands, and from that of the Ashanti, a nation of West African Negroes who were politically organized under a vast monarchy.

¹⁰ O. Lee, "Social Values and the Philosophy of Law" (*Virginia Law Review*, Vol. 32, 1946), pp. 811-812.

A. Ifugao basic postulates:

Postulate I. The bilateral kinship group is the primary social and legal unit, consisting of the dead, the living, and the yet unborn.

Corollary 1. An individual's responsibility to his kinship group takes precedence over any self-interest.

Corollary 2. The kinship group is responsible for the acts of its individual members.

Corollary 3. The kinship group shall provide protection for its members and punish outside aggression against them.

Corollary 4. The kinship group shall control all basic capital goods.

Corollary 4'. Individual possession of rice lands and ritual heirlooms is limited to trust administration on behalf of the kin group.

Corollary 5. Marriage imposes strict and limiting reciprocal obligations on husband and wife, but the obligations of each to his own kinship group take priority.

Corollary 5'. Sex rights in marriage are exclusive between husband and wife.

Corollary 6. Because children provide the continuity essential to the perpetuation of the kinship group, the small family exists primarily for its child members.

Postulate II. Men and women are of equal social and economic worth.

Postulate III. Supernatural forces control most activities, and the actions of human beings are either compatible or incompatible with the predilections of the supernaturals.

Corollary 1. Compatibility should be determined for the most important activities by means of divination.

Corollary 2. The supernaturals may be controlled to some extent by magic and influenced to a considerable degree by extensive sacrifice and appeasement.

Corollary 3. The taking of enemy heads is religiously and magically necessary.

Corollary 3'. A record of successful head-hunting gives a man (and his kinship group) power and social prestige.

Postulate IV. Capital goods may be lent at interest.

Corollary 1. Control of wealth gives power and social prestige: property is important.

Corollary 1'. A debt never dies.

Postulate V. Rice is the one good food.

Corollary 1. Ownership of rice lands is the most important means for control of wealth.

Corollary 2. Since water is necessary for the growing of good rice, control of water is essential to useful ownership of rice lands.

Postulate VI. Propinquity of residence ameliorates the absoluteness of the primacy of kinship ties and, conversely, outside the kinship group responsibility to others diminishes with distance.

Corollary 1. People should avoid quarrels and quickly settle disputes with nonrelated neighbors.

Corollary 2. A person may ordinarily kill a distant stranger on sight.

B. Ashanti basic postulates:

Postulate I. The gods and ancestral spirits control and direct the operation of all the forces of the universe.

Corollary 1. Man is subordinate to the wills of the gods and spirit beings, especially the spirits of ancestors.

Corollary 1'. The well-being of society depends upon the maintenance of good relations with the ancestors.

Corollary 1''. The ancestors will severely punish any contravention of their will.

Corollary 1'''. All major contraventions of the will of the ancestors or the gods are sins.

Corollary 2. The works of men are destined to be no more than the working out by human endeavor of forces of the universe that come within the ken of man.

Corollary 2'. The agents of government are under obligation to see that their regulations and all conduct among the Ashanti are in accord with "The Laws of Nature and the Ancestors."

Postulate II. All men must be allowed to participate, directly or indirectly, in the formulation of laws.

Postulate III. The ancestors will punish the group as a whole, if the group does not punish a sinner and atone for his misdeed.

Corollary 1. All sins are crimes.

Postulate IV. The ancestors will try a man in the spirit world, if he takes advantage of a miscarriage of justice here.

Postulate V. Past misfortunes are repugnant to the ancestral spirits.

Corollary 1. To mention such misfortunes (oath) causes the ancestors to take unfavorable notice of any situation to which an oath is attached.

Postulate VI. Men are endowed with conscious will, except when drunk or misdirected by an evil spirit in certain limited situations.

Corollary 1. A man is morally, legally, and individually responsible for his acts.

Postulate VII. Blood is physical in nature and is inherited through the mother, thereby creating a physical bond of continuity in matrilineal descent.

Corollary 1. The primary loyalty of a person is to his maternal lineage.

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Corollary 2. Social status, including chiefship, relations to property, residence, and burial, is primarily determined by membership in the maternal lineage and clan.

Postulate VIII. Semen (the spirit) is inherited through the father.

Postulate IX. Basic property is administered in trust only by its temporary possessors.

Postulate X. A headman or chief is the carnal viceroy of the ancestors of the kinship group he governs, and a stool is symbolic of the collectivity of the ancestors.

Corollary 1. While in the official position of leadership, he is sacred.

Postulate XI. Men are bound to their chiefs by personal fealty as well as by kinship.

Postulate XII. A man, except as he dies in battle or of natural causes, must know why he dies.

Corollary 1. Killing within the tribe must be done only by due process controlled by the king, for all other killing is hated by the tribe.

Postulate XIII. Cursing with a Forbidden Oath is killing.

Postulate XIV. Incest destroys the universe.

Postulate XV. Menstruation is spiritually unclean.

Postulate XVI. The sex rights of a husband in his wife are exclusive.¹¹

These postulates do not cover all the basic, axiomatic assumptions underlying Ifugao and Ashanti culture, but they do indicate the nature of a number of the more important ones.

CONFIGURATIONS OF CULTURE

Although a culture is built up of elements and traits, its significance is less in its inventory of traits than in the manner of its integration of traits. For this reason we have phrased the definition of culture in terms of "the integrated system of learned behavior."

Benedict, who introduced the configurational idea into modern anthropological thought, has written of culture, "The whole, as modern science is insisting in many fields, is not merely the sum of all its parts, but the result of a unique arrangement and interrelation of the parts that has brought about a new entity."¹²

This is a sound principle for the understanding of the nature of cultures and the uniqueness of divergent societies, for it is theoretically pos-

¹¹ E. A. Hoebel, *The Law of Primitive Man*, pp. 104-105, 252-254. For comparison, see C. Kluckhohn, "The Philosophy of the Navaho Indians," in F. S. C. Northrop (ed.), *Ideological Differences and World Order*, Chap. 17; also D. Lee, "Being and Value in a Primitive Culture" (*The Journal of Philosophy*, Vol. 46, 1949), pp. 401-415; reprinted in Hoebel, Jennings, and Smith, *op. cit.*, pp. 283-295.

¹² *Patterns of Culture*, p. 47.

sible for two societies to possess identical inventories of culture elements and yet so to arrange the relationships of the elements to each other as to produce two quite unlike systems of integration. By simple analogy, a mason may take two identical piles of bricks and equal quantities of mortar. Yet with these materials he may build a fireplace, a cesspool, or a garden wall, depending on the way he integrates the bricks.

The configuration of a culture may be defined as its delineated contours as formed by the structural interrelation of all its elements. It presumes internal integration in accordance with some basic and dominant principles or value systems underlying the whole scheme.

Pueblo Culture. In Benedict's discussion of the configuration of culture, the Pueblo Indians of the American Southwest have been shown to possess a culture that stresses restraint and orderliness in behavior, avoidance of emotional excess and display in personal experience and ritual, rigorous suppression of individual initiative and innovation, with quiet cooperation in group endeavor.¹³ Pueblo culture presents a philosophy of a carefully ordered universe in which man is but one harmonious part of a delicate balance that involves all nature. As long as each man plays his ordained roles in the traditional manner, all people will prosper, for the relation between man and the universe is reciprocal. The rain gods will make water-giving clouds; the gods of plants and fertility will mature the colored corn; the dancing gods will visit the village. All functions necessary to the good life and survival of the pueblo will be fulfilled. But if any person fails to perform his roles in the traditional and proper way, it will upset the delicate balance of the universe and bring down disaster upon the people.

Pueblo culture is a rich culture in a physically poor environment. Ceremonialism and ritual drama in elaborate religious complexes are supported upon a skillfully managed horticultural base precariously sustained in a romantically beautiful but realistically harsh desert.

The nature of Pueblo house structure—the compact, masonry-built, collective dwellings into which the members of each tribe are jammed with a physically imposed need for cooperative responsibility and not much possibility for individual leeway—is discussed in Chapter 12. The cosmic and social philosophy of the Pueblos emphasizes what Benedict has called the *Apollonian ideal*: the middle-of-the-road way of life that avoids all extremes of sensate behavior and, among the Pueblos, distrusts and suppresses individualism as a disruptive unbalancing force.

Alorese Culture. To draw the lines of another configuration, we may briefly turn to the culture of the people of Alor in Indonesia.¹⁴

¹³ *Ibid.*, Chap. 4.

¹⁴ C. DuBois, *The People of Alor*. A condensed summary can be found in A. Kardiner, *The Psychological Frontiers of Society*, Chap. 5.

Like the Pueblo Indians, the Alorese are gardeners, but for them the environment is that of the tropical forest. For women the main cultural activity is gardening; for men it is an endless round of wealth exchanges, the making and collecting of loans. Money, which in Alor consists of pigs, Javanese bronze vessels (*moko*), and gongs, is lent out at interest with tight bonds of obligation that bind the debtor to his creditor. Marriage and death, among other occasions, call for extravagant consumption of pork along with tremendous exchanges of *moko* and gongs. The heavy burdens of these occasions force the principals deep into debt.

Capitalism in Alor is primarily a vehicle for egotistical dominance over one's fellow men. In the family the internal tensions and hostilities of the Alorese household fail to gratify the security needs of the infant child. Alorese culture is integrated about the basic insecurity of the individual. Dominance through credit control is an attempt at compensatory adjustment.

In like manner, Alorese war rested not upon any military interest. War was only a means of getting even, a sort of irritable gesture expressed not in any art of warfare but in a series of long-drawn-out feuds marked by cowardly assaults carried out by trickery and stealth with women the victims as well as men.

Among the Pueblos and in Alor we have two cultures with reasonably distinct clear-cut configurations producing two quite divergent types of societies. These examples indicate in a brief manner the way in which variant cultures shape variant societies.

THE FUNCTIONAL NATURE OF CULTURE

The fact that each culture is made up of a multitude of selected traits integrated into a total system means that all parts have a special relationship to the whole. Each part may have *its* specific form as, for example, a bow, a canoe, a pot, a marital arrangement, or a legal process. No one of these elements of culture exists in a vacuum, however, or stands as an isolated unit. It plays its part in contributing to a total life-way. The way it and all the other parts relate to each other and influence or affect each other forms the structure of the culture. The contribution that each part makes to the total cultural system is its *function*, in contrast to its form.

Thus the bow, whose form may be expressed in measurements and pictures, may function in meeting the needs of food getting and defense, in ritual symbolism in the religious and governmental systems, in fire making, and in musical activities. To understand all the functions of the bow in any culture, it is absolutely necessary for the anthropologist to

follow through all its relationships to every other aspect of the culture on which it impinges. He must do this for each unit of culture, finally to see how all work to maintain the total life-way of the people he is studying.

A strange custom may seem meaningless and incomprehensible, or tantalizingly exotic, at first acquaintance. Within its cultural setting, and in relation to the basic postulates of those who practice it, and in terms of its functions within the system of which it is a part, the significance of the custom becomes scientifically meaningful. It is no longer a queer custom, but a socially significant act—always with reference to the system or structure of which it is a part.

Functionalism emphasizes the dynamics operating within a culture. It is concerned with a good deal more than the mere description of habits and customs.

A. R. Radcliffe-Brown, who was one of the chief exponents of functionalism and who contributed a good deal to its development, has used a biological analogy to make its meaning clearer. In his words,

An animal agglomeration is an agglomeration of cells and interstitial fluids arranged in relation to one another not as an aggregate but as an integrated whole. For the bio-chemist, it is a complexly integrated system of complex molecules. The system of relations by which these units are related is the organic structure . . . the organism itself is *not* the structure; it is a collection of units (cells or molecules) arranged in a structure, i.e., in a set of relations; the organism *has* a structure. Two mature animals of the same species and sex consist of similar units combined in a similar structure. The structure is thus to be defined as a set of relations between the entities. . . . As long as it lives the organism preserves a certain continuity of structure although it does not preserve the complete identity of its constituent parts. . . . Over a period its constituent cells do not remain the same. But the structural arrangement of the constituent units of the organism, the cells, and the organs into which the cells are united [do] . . . the life of an organism is conceived as the *functioning* of its structure . . . a cell or an organism has an *activity* and that activity has a function.¹⁵

The functions of each part are found in the contributions it makes to maintenance of the life process of the whole organism. So with culture. The functions of each custom and of each institution are found in the special contributions they make to the maintenance of the life-way that is the total culture.

The functionalists in their early enthusiasm therefore insisted that

¹⁵ A. R. Radcliffe-Brown, "On the Concept of Function in Social Science" (*American Anthropologist*, Vol. 37, 1935), pp. 394-395. See also B. Malinowski, "Culture" (*Encyclopedia of the Social Sciences*, Vol. 4, 1931), pp. 621-646.

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anthropology should concern itself only with the study of whole cultures and not with isolated aspects of culture, such as religion, magic, hunting, etc.

THE COMPARATIVE STUDY OF CULTURE

The ultimate aim of anthropology is to discover regularities in human activities and also the range of variability in human behavior. Other social sciences until quite recently have limited their observations to man and society in the Occident. Anthropology has from its very inception studied all races and all kinds of society wherever they may be found. The anthropologist is, in sooth, a traveling scientist. He is suspicious of any generalization about man or society made by the psychologist, sociologist, political scientist, or economist, based on studies of the United States or European countries alone. He immediately begins a cross-cultural check to see whether a wide sample of societies yields data that support or invalidate the rule. Anthropology is the comparative social science par excellence.

Social scientists often complain of the handicap that prevents them from undertaking experiments with human beings as the physical and biological scientist can experimentally control his problems in the laboratory. The anthropologist, on the other hand, makes capital out of the fact that he cannot experiment to any great degree. When he has an idea that needs testing, he packs his gear and heads for a tribe that has the conditions for "experimental" observation ready-built in its culture. Or short of this, he looks in the reports of other anthropologists to see whether their observations show his hypothesis to be true or false.

The nature of the comparative treatment of human behavior will readily be seen in the remainder of this book.

THE COMPONENTS OF CULTURE

In the analysis of culture it is helpful to reduce the concept to finer units.

When the activities of the members of a society (or group within a society) in a given situation are observed and recorded, it is inevitably found that most of them are identical, or nearly so. Scientific procedure calls first for classification of these behaviors. They are then arranged in accordance with their degrees of likeness, with the most unlike forms at the ends of the scale and the intervening classes in a continuous order between the two poles. This reveals the *range of variability*. Next, the number of times each class of behavior occurs in the sample is noted. This

gives the *frequency distribution*. The frequency distributions may then be transferred to a graph which has the range of variability as its baseline and the frequency occurrence as its vertical line. A line drawn through the frequency incidence for each class produces a *frequency distribution curve* (Fig. 8-2).

In most situations, the curve shows a high point with a slope away on either side. This is a *bell curve*. In some situations variation away from the high point will be in one direction only. This is a *J curve*. A norm is a statistical expression of the most common (*mode*), average (*mean*), or middle (*median*) class in the total frequency distribution.

Customs are social norms statistically identified. They are that which is normal. When feasible, social science analyses of social behavior should be statistically based. Anthropological experience has shown, however, that it is not usually feasible to make rigorous statistical studies of all kinds of behavior. Consequently, when an anthropologist describes a custom, he is usually stating what appears to be the modal behavior. Only in extremely rare cases does he make an actual statistical count of all behavior over a given period of time to determine an arithmetically accurate distribution. Such precision may be ideally desirable but under the given situation either impossible or impractical. Modern canons of anthropology do insist on observation of the behavior described whenever possible. Yet sometimes it is not possible to observe what is recorded, since the behavior may have died out, or may be secret, or the field worker may not be around at the particular time the event comes off. Therefore, to find out whether a given habit is modal or not, we frequently must take a people's word for it. They say this is what they always do, or usually do, or would do, if they did it.

A *culture element* is a pattern of behavior (or the material product of such behavior) that may be treated as the smallest unit of its order.

Anthropologists often speak of *culture complexes*. A complex is a network of closely related patterns. Examples would be the activities of a dance which together form a dance complex; or of the hunt, which form a hunting complex; or of child training, which form a child-care complex.

The complexes that are woven together in relation to the basic interests of social living are called *institutions*, as, for example, those concerned with subsistence activities and the production and distribution of goods, which are called *economic institutions*; or those concerned with sex, reproduction, and kinship, which are called *kinship institutions*.

Norms that apply to every member of a society, as the use of a fork among us, are called *universals*. Although certain kinds of behavior may be required of everyone in a society, most cultures allow some degree of choice between norms for specific situations. These are known as *alter-*

natives. Thus, as a student, you may wear a four-in-hand, a bow tie, or none at all. A Cheyenne Indian could make a personal choice between a bow and arrow, a spear, or a club wherewith to smite the Crow. Each is a norm, but one does not exclude the other within the culture as a whole.

The traits that are restricted to a particular subgroup, as the common tabus of medicine men or the hairdos of married women, are *specialties*.

The specialties of one group may be known to the other members of the society and yet not be used by them, because they are not patterns for their behavior. Many American adult men know the Boy Scout salute, having once been Scouts, but they do not use it as a form of greeting after they have left Scouting behind. In a complex society, however, most specialties remain unknown to most of the people. This may be because the specialties require unique aptitudes or a rigorous course of training which is undertaken by only a few. Or, it may be that the specialties are the secret and hidden knowledge of a few, kept within their closed circle for the benefits that may be derived from secretiveness. The result is that no individual can ever acquire or manifest in himself all the elements of his society's culture. It means also that no anthropologist, even the most assiduous, can ever make note of, to say nothing of record, all the aspects of any culture, even the simplest known to man.

This, then, provides the answer to the question often asked, "How can one speak of American culture when there is such diversity in the cultures of New Yorkers and the Kentucky Highlanders?—between the Italians of Lower Manhattan and the Scandinavians of Minnesota?—between the Yankees of Vermont and the *paisanos* of Monterey?" The universals shared by all Americans are the common binding and integrating elements of American culture and society. The specialties of the different regional groups and socioeconomic classes are merely differentiating elements.

The cohesive strength of a society is in part a product of the relative proportion of *universals* to *specialties*. In any analysis of a society and its culture, it is absolutely essential, in the interests of clarity and accuracy, never to generalize from the norms of a subgroup to make statements about the society as a whole, unless it has been observed that the norms of the subgroup are also characteristic of the whole. Americans who live west of the Hudson River and north of Long Island Sound can appreciate the meaning of this injunction, if they will reflect on their feelings about European authors who write about America after a visit to New York City.¹⁶

¹⁶ The analytical concepts of universals, alternatives, and specialties were introduced in anthropology by Ralph Linton. See his *The Study of Man*, pp. 272–275.

REAL AND IDEAL CULTURE

The culture whole, or *the* culture of a society is an abstraction of a high order.

When we speak of a culture we talk as though it were a neatly taped-off entity, when in point of fact each culture is woven into other cultures at the points where there are intersociety contacts.

Cultures are also constantly changing and modifying. Yet, in anthropology we investigate a society on a field trip of greater or lesser duration, after which we write up a monograph describing its culture. In so doing, we fix for the moment those main lines of characteristic behavior that we have perceived and noted as though they were all taking place at any given moment. It is as though we stopped a fast action with a high-speed shutter to obtain an instantaneous picture of a continuous action. We get the main contours of the action frozen for an instant in what Linton called the *culture construct*.¹⁷ It is a statement that lumps together descriptions of modal behavior, in which each mode typifies or represents what is actually a variable range of behavior produced in the members of a society by a given stimulus.

It should be realized, then, that what we deal with in anthropology is the culture construct rather than the *real culture* itself. The culture construct represents the real culture as accurately and as approximately as scientific methodology makes it possible to do so.

It is also necessary for us to distinguish *ideal* from real culture. Ideal culture is what a people set forth as conscious standards for behavior. They may or may not be translated into normal behavior. Ideal norms are generally selected and phrased in terms of group well-being. The individual has learned that he had better subscribe to them publicly, even though he is going to act differently outside of the public view.

An outstanding example of this is found in Malinowski's account of the Trobriand Islanders with respect to clan incest.

If you were to inquire into the matter among the Trobrianders [wrote Malinowski, who did precisely that], you would find that . . . the natives show horror at the idea of violating the rules of exogamy and that they believe that sores, disease and even death might follow clan incest. [But] from the point of view of the native libertine, *suvaso* (the breach of exogamy) is indeed a specially interesting and spicy form of erotic experience. Most of my informants would not only admit but actually did boast about having committed this offense or that of adultery (*kaylasi*); and I have many concrete, well-attested cases on record.¹⁸

¹⁷ R. Linton, *The Cultural Background of Personality*, pp. 43-46.

¹⁸ B. Malinowski, *Crime and Custom in Savage Society*, pp. 79, 84.

The natives manage to get away with it, provided they keep it from becoming a publicly recognized scandal, because they have a system of magic which ensures immunity from the threatened diseases if a person has the proper charms.

One department of the culture provides the means for making a mockery of the other. Preservation of the clan is a group interest loudly acclaimed. Intercourse with a clan cousin is an individually motivated sport that is a genuine custom.

A similar conflict of norms existed among the Comanches, who married their young girls to older men. Ideally, they loved and respected one another—especially the girl her husband. Actually, a considerable number of romance-seeking wives ran off with dashing young warriors. This was against the law—for the law is on the side of husbands. The Comanche husband could, and as a matter of fact had to, sue for damages. He could, and often did, kill his wife, if not cut off her nose. This was his privilege by law. But the interesting part of it all is that a deserting wife and her absconder always ran off with a war party. It was the custom. So they were aided and abetted in flaunting the marital norms by fellow Comanches. It was a group custom to break the law.¹⁹

We need not discuss here the gaps that exist between our ideals of democracy and our practices that negate them, even though they are a tender spot in our social body.

It is because of such ever-present gaps between the thought and the deed, between the ideal and the action, that the realistic social scientist will no longer take a people's say-so as valid evidence of the real behavior norm.

THE SUPERORGANIC

The nature of the superorganic is best seen in its schematic relation to the lower levels of natural phenomena. The prototype of the idea represented in the table was first formulated by the founder of modern sociology, Auguste Comte, more than 100 years ago. Herbert Spencer gave it its later elaboration, and Kroeber brought the concept into anthropology three decades ago.²⁰

The lowest level of natural phenomena was the first to take evolution-

¹⁹ A number of cases are presented and discussed in E. A. Hoebel, *The Political Organization and Law-ways of the Comanche Indians* (American Anthropological Association, Memoir 54: Contributions from the Laboratory of Anthropology, 4, 1940), pp. 49–66.

²⁰ A. Comte, *Positive Philosophy*; H. Spencer, *The Principles of Sociology*, Vol. 1, pp. 2–16; A. L. Kroeber, "The Superorganic" (*American Anthropologist*, Vol. 19, 1917), pp. 163–213.

ary form. It consists of inorganic matter—earth materials and cosmic stuff. With the birth of life something new was added. The inorganic became organic, and in the emergence of vitality a new level of phenomena was reached. No one mistakes the fact that between living organisms and inorganic matter there is *a difference in kind*, even though all organisms are composed of inorganic elements. Note this well: the vital organic rests upon the inorganic level from which it emerged, but the presence of vitality raises it to an entirely different plane. Nor does the baffling mystery

The Levels of Natural Phenomena and Their Respective Sciences

LEVEL OF PHENOMENA	TYPE OF PHENOMENA	HIERARCHY OF SCIENCES
IV. Superorganic	Culture	Anthropology, culturology, sociology, political science, economics, history
III. Psychic organic . . .	Sentient animals	Psychology, neurology, social psychology
II. Vital organic	Protozoa, metazoa, plants, and nonsentient animals	Organic chemistry, zoology, biology, botany, physical anthropology, anatomy, physiology
I. Inorganic	Earth and cosmic matter	Chemistry, physics, geology, astronomy

of the nature of life keep us from recognizing the difference between organic and inorganic phenomena.

Quite late in organic evolution the more advanced life forms became sentient. They developed nervous systems. For the third time in emergent evolution a new order was established. Animals developed the notochord and psyche. Sentient animals are different in kind from nonsentient plants, viruses, metazoa, and protozoa. They represent a different level of phenomena, and no one fails to see the difference between the two levels, although all psychic manifestations are rooted in the vital organism and the nature of the nervous impulse still remains unexplained.

Thus we come to cultural phenomena, the latest and most advanced product of the evolutionary process. As happened twice before, something new was added to what had previously existed. The psychic capacity of man crossed the culture-producing threshold, and he produced a yet higher level of phenomena—that which, while it rests on the organic and the psychic, is more than either—the more-than-organic, the superorganic, culture.

An interesting and incidental bypath of the sequence of levels of phe-

nomena is the historical sequence of the development of the sciences. Astronomy, physics, chemistry, and geology—the sciences that deal primarily with the lowest order of phenomena, the inorganic—are the oldest and most highly developed of the sciences. Zoology, biology, physiology, and those sciences predominantly concerned with the vital organic were next in birth and approach to maturity. Psychology and the social sciences were last upon the scene. Among these infant sciences, anthropology and culturology were the very last to emerge as full-fledged disciplines. Mastery or near mastery of the lower levels of phenomena seems to have been a necessary prerequisite to scientific awareness of the existence of the higher levels.

Given 200 years of development of methodology in psychology, sociology, and anthropology, there is some hope that these sciences will approximate the sure-handed skill of the others.

SUMMARY

A culture is not a thing, nor is it a precise entity. Nevertheless, it is conceived of as having an existence and as being distinctive. It is expressed in individual behavior and exists only in the actions of people. Yet it transcends the individual, for the culture within which the individual lives existed before his birth and continues its existence after his death. It consists not only of all the learned behavior manifested by the members of a society; it also consists of patterns *for* the behavior of the members of a society. Language and symbolism are major qualities of all cultures.

Anthropology demonstrates the vast range of behavior that human beings have proved themselves capable of. Yet no society could exist if its members were to indulge in all of these behaviors. Some are directly contradictory to others and they are consequently incompatible. Aside from this, sheer diversity of possible actions would make behavior so unpredictable that social conditions would be chaotic. To organize people's activities, major lines of standardized behavior are socially imperative. Cultures are selective and limiting.

Integration, the establishment of internal consistency in norms, is an essential characteristic of cultures. Integration is achieved with reference to certain basic propositions or postulates as to the nature of things and the desirability or undesirability of things.

Culture is said to be superorganic in that the behavior patterns that make it up are not genetically predetermined in human inheritance; in themselves they have no material being.

The components of culture are *culture traits*, *culture complexes*, and *institutions*. They are also identified as *universals*, *alternatives*, *specialties*,

and *idiosyncrasies*. The elements and complexes of a culture are functional in that each part tends to be related to the others in ways that contribute to the operation of the whole culture. The differing ways in which variant culture traits are related to each other lend to each culture its unique over-all quality, or configuration. It is through culture that each society develops a way of life that enables it to cope with the wresting of sustenance and shelter from the physical world and of managing the relations of human beings one to another.

SELECTED READINGS

- Benedict, R. F.: *Patterns of Culture*, Chapters 1, 2, and 3, entitled "The Science of Custom," "The Diversity of Cultures," and "The Integration of Culture." An excellently written, classic treatment of culture and its configurations.
- Kluckhohn, C., and W. H. Kelly: "The Concept of Culture" in R. Linton (ed.), *The Science of Man in the World Crisis*, pp. 78-102. An imaginary discourse between three anthropologists on the meaning of "culture."
- Kroeber, A. L., and C. Kluckhohn: "Culture: A Critical Review of Concepts and Definitions" (*Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University*, Vol. 47, 1952). An encyclopedic survey and analysis of the concept of culture. Possibly not of much interest to the beginner, but a very useful guide nonetheless.
- Murdock, G. P.: "The Science of Culture" (*American Anthropologist*, Vol. 34, 1932), pp. 200-215; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 312-321.
- White, L. A.: "The Symbol: The Origin and Basis of Human Behavior" (*Etc.: A Review of General Semantics*, Vol. 1, 1944), pp. 229-237; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 303-312.

Part Four

PRIMITIVE CULTURE

B. SUBSISTENCE AND CRAFTS



Grinding corn. Otobalo, Ecuador. (From Collier and Buitrón, *The Awakening Valley*, University of Chicago Press, Copyright 1949 by the University of Chicago Press, Copyright under International Copyright Union, photograph by John Collier, Jr.)

CHAPTER 11. Food Getting

MAN eats to live. The cravings of a hungry stomach are but sensory stimuli that set the organism into food-getting activities. Ingestion of food is an absolute necessity to the maintenance and functioning of the organism. Food as fuel to be released as energy is necessary to bodily action. Food as repair material to replace the continuous loss of substance from the body is necessary to bodily maintenance. True foods are either energy yielders or nonenergy yielders, and man must get an adequate intake of both. The latter supply inorganic materials for body replacement. In addition, man must take in indigestible materials, expressively called *roughage*, to assist the passage of true food and its residues through the alimentary canal.

Food getting is a physical imperative, subsistence a fundamental interest, hunger a diffuse primary drive.

The society that fails to solve the problems of development of minimal subsistence techniques is doomed. The ghost of Malthus haunts all mankind.

The subsistence resources available to a people depend upon three factors: the natural environment, culture, and population. People who subsist by collecting and gathering roots, berries, seeds, and insects are for the most part directly dependent upon what the natural environment offers for the taking. People who have acquired the techniques of planting, cultivating, and harvesting crops, or the husbandry of animals and who have mastered methods of cooking or otherwise changing the chemico-physical substance of natural products, so as to make them useful or more desirable as foods, are less directly dependent upon the natural offerings of their physical environment. As man learns to expand his food-producing resources through cultural techniques and devices, he pushes back the specter of starvation and lays the base for the expansion of society.

The natural environment does not absolutely determine the nature of the foodstuffs a society can enjoy. Deserts can be made to bloom and bear fruit. Hothouses can be built in the Arctic, and ice cream can be frozen on a Pacific isle. Yet only quite advanced cultures make such things possible. Nor do food-getting techniques dictate the details of all aspects of culture. Great variations occur in the cultures of hunting peoples and, more especially, of gardeners.

Modern anthropology rejects the cruder aspects of environmental determinism espoused by the anthropogeographer of an earlier day. Nonetheless, the nature of the physical environment does influence the materials and modes of subsistence of any people, especially primitive.¹ Therefore, we shall briefly delineate the chief types of physiographic environments and note some of their primitive inhabitants.

CLASSIFICATION OF ENVIRONMENT

Chapple and Coon² have advanced for use in anthropology a classificatory scheme of terrestrial environments taken from the work of the geographer, Preston James.³ The classification is fairly generalized, since the divisions represent combinations of elements (vegetation, climate, soil, orientation of land) as they exist over wide areas. Finer distinctions would lead to a multiplication of categories beyond the eight that are here given.

Dry Lands (Deserts). Annual rainfall ranges from zero to 15 inches and there is a great diurnal range of temperature. Vegetation is sparse and animal life naturally limited. Water sources are irregularly distributed and directly influence the distribution of human and animal life. Oases make possible sedentary gardening and pastoral existence. Rivers that have their sources in mountain areas bring water to some deserts and support gardening cultures along their courses, as is the case with the Pueblos of the Southwest. Otherwise, desert environments tend to support only the most primitive hunters and collectors, as was the case with the Shoshones in the Great Basin, the natives of the "Dead Heart of Australia," and the African Bushmen who, although they enjoyed a more favorable locale in recent prehistoric times, have been forced to take refuge in the inhospitable Kalahari Desert, first because of Bantu pressure and lately by the aggressions of South African whites.

Tropical Rain Forests. These occur along the equator. Heavy rains and high temperatures combine to produce luxuriant growths of vegetation, which are so heavy as almost to choke out animal and human life. In

¹ A. L. Kroeber, *Cultural and Natural Areas of Native North America* represents the quintessence of anthropological analysis of the relation of cultures to geographic features of regional areas.

² *Principles of Anthropology*, pp. 73-95.

³ *An Outline of Geography*.

the *true rain forest* it rains every day; there are no seasons, and plant life blooms the year round. Sunlight rarely penetrates to the ground, where in the dank, dim gloom of the forest there is little game. Gardening is difficult. The jungle quickly swallows such clearings as are laboriously hacked out for garden patches. Only when peoples of high cultures and large populations undertake thoroughly to strip the jungle and to grow rice do rain-forest lands lend themselves well to habitation. This has been done in Southeast Asia. In the *semideciduous rain forest*, seasonal rains alter the situation somewhat. Trees shed or fade annually, thus giving surface undergrowth a chance for thicker development. Typical inhabitants of the rain forests are the Amazonian Indians, Congo Negroes, Melanesians, and Indonesians.

Mediterranean Scrub Forests. Adjacent to a desert and the sea, shut off from the desert by mountains, and lying in the temperate zone, the scrub-forest lands enjoy mild rainy winters and dry hot summers (viz., California). Scrub broadleaf trees provide bountiful nuts, and small game is abundant. Although limited in extent, these areas readily support various types of human societies. Typical peoples are the coastal and mountain Indians of California.

Temperate Forests. The temperate forests are well watered, but not excessively so. Winter and summer seasons are well defined, and trees are both deciduous and evergreen. Game is usually fairly abundant, but natural food plants are limited. Gardening is possible, but it requires much work in the clearing of land. Great areas of woodland must be stripped before extensive populations can be supported. The temperate forests are suitable for a fairly rugged sort of primitive existence. Early civilization was nourished best in scrub-forest environments, but modern times have witnessed the inexorable conquest of the temperate forests primeval, which now are the home of over half the earth's peoples. The temperate-forest areas advance in importance as culture is developed to the levels of machine technology. Types of peoples are the Woodland Indians of eastern North America and the Northwest Coast of the same continent, and the prehistoric peoples of Europe.

Boreal (Northern) Forests. Because of their subarctic location, the northern forest belts have long cold winters and short summers. Broadleaf trees are rare; the conifers are fairly alone. Fur-bearing animals abound, and gardening is all but impossible. Only hunters can make out in this rugged environment where no advanced cultures have as yet been located. Typical people are the Naskapi and other eastern Algonquians, and the Athapascan-speaking tribes of the interior Canadian Northwest.

Polar Deserts and Tundras. The Arctic and Antarctic land areas are either ice-capped, barren, or covered with bush and sedge grass. The explorer Stefansson may call it "The Friendly Arctic," but fewer than fifty thousand of the earth's two billion people find it a fit place to live. The

one-sixth of the earth's land area within the polar zone supports 0.0025 per cent of humanity. Typical peoples are the Eskimos, the Chukchi and Yukaghir in Siberia, and the Ona and Yahgan in Tierra del Fuego.

Grasslands. The prairies and steppes are the two great types of quasi-arid grasslands within the temperate zones. In lower latitudes are found the tropical grasslands known as *savannas*. These areas are the most favorable in the world for the proliferation of game, large and small—bison in America—and numerous varieties in the African Sudan. Primitive people without domesticated transport animals can exist in the grasslands only in small groups of nomadic hunters or as gardeners in river bottoms. Pastoralists, of course, flourish in such areas, and hunters equipped with horses can do very well indeed. Types of peoples are the Plains Indians in North America, Kirghiz in Turkestan, Mongols in Asia, and Masai in East Africa.

Mountain Areas. Except in the boreal and polar regions, mountain areas can present most of the geographic zones in a vertical succession. Consequently, they provide a number of variant possibilities for different types of societies and cultures, although difficulties of transportation and communication tend to hold them back. Outstanding among mountain cultures was that of the Incas of Peru.

Before we undertake to describe various food-getting techniques of primitive men, let us clarify what is meant by such terms as *hunters* and *gatherers*, *lower hunters*, *higher hunters*, *gardeners*, *hoe culture*, *agriculture*, and *pastoralism*. These are all categories for the classification of peoples or cultures in terms of their *predominant* subsistence techniques, for the activities of men are multifarious, and even industrialized men garden, hunt, fish, and occasionally collect wild berries and nuts as well as maintain pastoral flocks and herds.

FOOD GATHERERS

Collecting and gathering is the rudest and the most primitive technique for the acquisition of food. In its lowest forms it requires no tools whatsoever. Hands with which to pluck and arms with which to convey the edible plunder to the mouth suffice. This is the technique of our anthropoidal relatives. Few contemporary primates have been carefully observed under natural conditions, but we have an admirable account of a day's jaunting of a group of chimpanzees in French Guinea (West Africa) as reported by Dr. Henry Nissen.⁴ Nissen's observations lead to the following data on chimpanzee food habits: Thirty-four foods eaten during the dry season were identified, of which there were twenty-eight

⁴ H. W. Nissen, *A Field Study of the Chimpanzee* (Comparative Psychology Monographs, Vol. 8. No. 1. Serial No. 36, 1931).

fruits, three stalks or stems, two blossoms, and one leaf. It is possible that eggs and small birds and rodents are consumed, but this is not confirmed. When eating (which takes 3 to 6 hours per day), a chimp ensconces himself in a crotch or upon the branch of a tree. Steadying himself with one arm, he uses his free arm to pluck the fruit and bring it to his mouth. Or, he may reach out and bend in a branch to eat directly from it. Or, caring nothing for the fate of the tree, he may break off a branch to strip it of fruit. He never eats with his feet, which is to his credit, and he always tries to eat everything within reach before moving to another spot. If the band moves before he has finished off one spot, he may snatch a branch of fruit and munch upon it as he shuffles along. Chimpanzees are not inhibited by any sense of delicacy that prohibits spitting out food they do not like. They feel perfectly free to eat what they prefer of some object and to throw the rest away without tasting. When hungry, the chimpanzee bolts almost everything. When full, he becomes quite finicky and leaves a careless litter of unwanted scraps beneath his tree.

Although Köhler demonstrated that chimpanzees are smart enough to invent simple tools with which to reach food when they are locked in a cage and not allowed to eat naturally, there is no indication that wild chimpanzees ever bother to make even the simplest tools for use in food getting. Their relation to nature is one of direct dependency. Hypothetically, this was true of the earliest ape men of Pliocene times. It would not be true of the Dawn men of the Early Pleistocene, since we have incontrovertible evidence that these men made tools. If they made tools, we may feel certain they used them. And so, a million years ago man had already left "pure collecting" and was *working* upon his physical environment.

To illustrate the subsistence techniques of a group of lower hunters and collectors, we might describe the activities of one or another Australian tribe, or the Tasmanians, Semangs, Andaman Islanders, African Pygmies, or African Bushmen. Any of numerous California tribes would do equally well, as would one of the three main tribes of Tierra del Fuego. However, we shall make the Great Basin Shoshones our exemplar.

In 1860, Abbé Domenech noted of the Great Basin Shoshones, "According to the season, they emigrate from one place to another to seek miserable roots, which form their only nourishment; even animals are seldom to be found there."⁵ It is because of their root-grubbing activities that the Shoshonean food gatherers are known throughout the Western states as *Diggers*. Steward lists over 100 species of seeds, roots, and nuts known to have been eaten by the Shoshones.⁶ Roots were extracted with

⁵ E. Domenech, *Seven Years' Residence in the Great Deserts of North America*, Vol. 1, p. 242.

⁶ J. H. Steward, *Basin-Plateau Aboriginal Sociopolitical Groups* (Bureau of American Ethnology, Bulletin 120, 1938), pp. 21-32.



Fig. 11-1. Bushman woman gathering roots with dibble. (Peabody Museum, Harvard University.)

a simple pointed digging stick, or dibble. Seeds were collected with the aid of a woven basket and a fanlike beater wherewith to knock the grass seeds into the basket. Of all the delectable seeds offered by the desert, those of the sunflower were the most prized. Roasted lightly and ground on a stone metate, they were reduced to an oily paste, which tasted "just like peanut butter." In field work among the members of the *H3kandika* (Seed Eater) Shoshones, who live on Bannock Creek in Idaho, gallon jars of peanut butter make most acceptable presents. They stimulate memories of olden days. Pine nuts also played a great part in the social economy of the various Shoshones—with results that we shall look into under the heading of land ownership (see Chap. 25).

Not only was the environment exploited for roots, berries, and nuts, but insects were looked upon as an epicurean godsend. Regular communal grasshopper drives were organized. A sizable pit, 3 or 4 feet deep and 30 or 40 feet across, was laboriously prepared. Then men, women, and children formed a large circle, which converged slowly on the pit as they drove the grasshoppers before them with brush beaters. A good drive netted countless grasshoppers, which could then be roasted to provide a feast of plenty.

Ants were a more favored delicacy, because of the pungency of their taste when properly prepared. In March, when the ants had left the

larva stage but were not yet up and around, a woman would scoop up an entire ant nest in her large scallop-shaped winnowing basket. With dextrous and wonderful manipulation she shook the basket so that the ants gathered in its heel, while the sand and dirt bounced off the outer edge. When only ants remained, she scooped up hot coals with the basket. Rapidly jouncing them in the air, she kept the coals and ants turning together and the basket from burning up. When at last the legs were burned from the ants and their bodies properly toasted, her motions were deftly altered; the ashes marched off the edge of the basket, while the ants once again foregathered in its heel. They were then dumped upon a grinding stone, rolled out, and reduced to a delectable paste (from the Shoshone point of view). This recipe is known as Shoshone *antepasto*.

Small rodents were trapped by means of simple deadfalls. Rabbit hunting took the form of a great communal hunt under the direction of a hunt chief.⁷ Nets were set up and beaters drove the quarry into the waiting meshes. Soft robes were plaited from thin strips of rabbit fur for winter use. Antelopes were occasionally hunted in much the same way, but with the addition of magical lures and antelope disguises worn by the hunters. A fence of brush supplanted the nets of the rabbit hunt.⁸

Deer, mountain sheep, and mountain goats were sometimes pursued alone by the most energetic hunters. A hunter with much endurance would chase a deer or sheep for two whole days until exhaustion of the quarry made it possible for him to get close enough for a shot. Should this seem like incredible exertion, perhaps the motivation can better be appreciated if we quote Lewis and Clark on the meat hunger of the Shoshones. One of the expedition's hunters had killed a deer on Friday morning, Aug. 16, 1805. The Shoshones accompanying Captain Lewis, after a pell-mell race to the spot where Lewis's man had dressed the deer,

. . . all dismounted and ran tumbling over each other like famished dogs; each tore away at whatever part he could, and instantly began to eat it; some had the liver, some the kidneys, in short no part on which we look with disgust escaped them; one of them who had seized about nine feet of the entrails was chewing at one end, while with his hands he was diligently clearing his way by discharging the contents at the other.⁹

This method of eating "sausage" was still remembered by my Shoshone informants in 1934.

⁷ Communal rabbit hunts extend down through the Southwest into the pueblos, where participation is not only a lark but a religious duty, and into the various groups of the Gila River area.

⁸ Antelope and buffalo drives were performed by the Plains tribes in a somewhat similar manner.

⁹ M. Lewis and W. Clark, *History of the Expedition of Captains Lewis and Clark, 1804-05-06*, Vol. 2, p. 401.

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Shoshone deer hunting was much like that of the Tarahumara Indians of Mexico, of whom Bennett and Zingg report:

Hunting deer consists of chasing the deer for two days—never less than one day. The Tarahumara keeps the deer constantly on the move. Only occasionally does he get a glimpse of his quarry, but he follows it unerringly through his own uncanny ability to read the tracks. The Indian chases the deer until it falls of exhaustion, often with its hoofs completely worn away.¹⁰

Fear of starvation constantly haunted the Shoshones. Like the Eskimos, they sometimes took a desperate last resort in cannibalism. But cannibals were feared and hated, and occasionally lynched.¹¹

It would be an error to conclude from the above remarks that the Shoshones were devoid of all fastidiousness. They would and will eat neither dogs nor coyotes, for Coyote is a supernatural culture hero—a lovable rascal who figures in many a myth as an Indian equivalent of Tyll Eulenspiegel. He is the younger brother of Wolf, whom some Shoshones look upon as the Supreme Deity.¹² To kill a coyote or his cousin the dog is unthinkable; to eat them, impossible. Modern Shoshones, in 1934, were even loath to eat the surplus Navaho sheep sent them by the government. Skinned sheep look too much like flayed dogs.

Bands of food gatherers are necessarily seminomadic. They must cover wide areas to skim off sufficient provender to keep them alive. But a given band tends to stay within its own familiar territory, because (1) any animal may secure food and water more efficiently if it knows the land; (2) all human groups practice some storage of food; (3) they may also practice conservation of food resources; (4) their movements are hindered to a certain extent by their possession of material goods; and (5) property concepts are universal among mankind; tacit agreement allocates to each group its landed property unless the equilibrium is upset by war and migration.¹³

HUNTERS

Hunters always rely to some extent upon berries, nuts, and roots to round out their diet. But they are distinguished from collectors and gatherers in that they are predominantly predatory carnivores in their sub-

¹⁰ W. C. Bennett and R. M. Zingg, *The Tarahumara*, p. 113.

¹¹ E. A. Hoebel, *The Political Organization and Law-ways of the Comanche Indians* (American Anthropological Association, Memoir 54, Contributions from the Laboratory of Anthropology, 4, 1940), p. 141.

¹² R. H. Lowie, "The Northern Shoshone" (*American Museum of Natural History, Anthropological Papers*, Vol. 11, Part 2, 1909), pp. 233ff.

¹³ J. H. Steward, "The Economic and Social Basis of Primitive Bands" in *Essays in Anthropology in Honor of Alfred Louis Kroeber*, p. 332.

sistence habits. Man is omnivorous by nature. This more than any other single trait distinguishes him from his vegetarian anthropoidal relatives. When or how the revolutionary meat-eating habit first took hold in the evolutionary development of man we do not know.

It is difficult for man to down his animal victims without the aid of tools. In almost all hunting situations he relies upon some inventive device to assist him in bringing down his quarry. Thus he uses clubs, spears, darts, arrows, deadfalls, pitfalls, snares, nets, weirs, hooks, axes, knives, and poisons to accomplish his ends. He may enlist the aid of a dog or mount a horse or camel. Perhaps he may fashion a boat to bring him to his quarry. Whatever the device he may use, hunting techniques are those of assault (shooting, spearing, clubbing, axing, stabbing), trapping and snaring, the pitfall, and poisoning. Shooting, while the most commonly preferred technique among recent primitives, was probably the last of these methods to appear in human prehistory. The bow was not invented until late Paleolithic or early Neolithic times. Neandertal man had clubs, spears, and hand axes. While there is no direct evidence that he utilized traps and snares or pitfalls, it is likely that he had invented simple devices of this order. There is no way of knowing whether he wittingly used poisons or not.

Because it is so efficient a weapon, the bow had attained almost world-



Fig. 11-2. Bow and arrow used by Bushman hunter. (Peabody Museum, Harvard University.)

wide distribution by the seventeenth century. The skill of most primitive hunters in tracking game to bring them within bowshot is so well known as not to bear repeating here. Devices of disguise are cleverly used in some tribes. Bushmen artists have depicted disguised bowmen stalking the unwary ostrich. Western Indians were wont to wear antelope skins to approach that fleet and shy beast. Cheyennes shot eagles on the wing by hiding under grass in a pit from which they slowly rotated a stick with a bit of cloth on the end. This aroused the curiosity of the king of birds, who warily soared lower and lower until the patient hunter could spring from his blind for a shot.

In the jungles of Malaysia and South America and the woodlands of southeastern United States, the blowgun with dart is often preferred for the hunting of small game and birds. The heavy jungle growth inhibits any long-distance shooting, and in such a setting darts are often more effective than arrows, especially in South America and Indonesia, where darts are poison-tipped.

The hunting of larger animals is not usually a matter of technique pure and simple. Ritual and magic are evoked to reinforce the hunter, whose anxiety for personal safety and fear of failure are overriding. Much of the cave art left by Cro-Magnon man is eloquent, if mute, evidence of this. His painted figures of animals are frequently wounded and pierced with figures of darts. We do not know what ritual formulas gave efficacy to Cro-Magnon animal effigies. But a Winnebago Indian tells of a very holy hill in Wisconsin in which was a cave wherein lived twenty spirits, called *Those-who-cry-like-babies*.

My father had control of them [says Crashing Thunder in his autobiography] and when he wished to bless a man he would take his bow and arrows and, holding them in his hands, lead the man around the hill and into the lodge [i.e., into the hill]. There he would look for a stone pillar, and upon it, at about arm's length, he drew the pictures of a number of different animals. My father possessed only one arrow, but that one was a holy one. Then dancing around the stone pillar and singing some songs, he finished by breathing upon the pillar. Finally he walked around it and shot at it and when he looked at the stone, it had turned into a deer with large horns which fell dead at his feet. . . . My father was a very famous hunter and my brother wished to be like him.¹⁴

Whaling among the Eskimos and certain Northwest Coast Indians is assuredly one of the bravest and most technically skillful hunting-by-assault accomplishments of any primitive people. To reinforce his hunting skills, to give social recognition to the outstanding hunter, and merely in consequence of his belief in the spirit nature of whales and all the

¹⁴ P. Radin (ed.), *Crashing Thunder*, pp. 27-28.

denizens of the animal world, the Alaskan made of whale hunting not only a hunt activity but a cult of magical and religious observances.

Lantis's analysis of the Alaskan Whale Cult¹⁵ has revealed it as a complex of technological, economic, sociopolitical, magico-religious elaborations. The Whale Cult is only one example among the many that come to our attention when we observe actual subsistence activities by means of field work. Whale hunting, then, in addition to the actual chase, which involves skilled use of boats, paddles, harpoons, lines, and floats to locate, trail, attack, destroy, and land the great sea monster, is worked into a web of behavior and beliefs that includes the following chief elements:

1. The headman of a whaling crew is a headman of the local group. Whaling leadership is integrated with social leadership.

2. Distribution of the parts of the whale is regulated by customary usage in accordance with which the boat owner, harpooner, and others hold particular rights.

3. Initiation into the Whale Cult is through a long arduous period of instruction in which the young whaler learns the rituals and songs and seeks a vision.

4. Special amulets to ensure good luck are used in the whale hunt and hidden away in a secret cave between seasons. Knowledge of such caves and the use of the amulets is passed from father to son.

5. Whaling songs are sung. They are private incorporeal property (see pages 447-448).

6. The season of whaling is a special ceremonial and tabu season. The whalers are isolated from the main village. They are unclean, must sleep in the open, and (in northern Alaska) must not eat raw meat.

7. Whalers must be sexually continent before and during the whaling activities.

8. All those left in the village during the actual hunt must neither sleep nor work.

9. The wife of the chief whaler must remain quietly at home without eating, "in order to draw the whale to her."

10. Corpses or parts of the bodies of deceased whalers are used in ceremonial preparation for the hunt or are carried in the whaleboat.

11. All gear must be repaired and cleansed before the onset of the whaling season, otherwise the whale will be offended.

12. When the whale is hauled ashore it is given a symbolic drink of water by the whaler's wife.

13. As the whale is cut up, certain parts of his body are ceremonially handled, and very special rituals are performed to return the whale's

¹⁵ M. Lantis, "The Alaskan Whale Cult and Its Affinities" (*American Anthropologist*, Vol. 40, 1938), pp. 438-464.

spirit to the sea unangered. It is given food, and no disturbing noises are permitted.

14. The length of the ritual period following a whale killing is the same as for a human death (3 to 5 days).

This is only a brief sketch of the Whale Cult complex, but it should serve to indicate how much more there is to hunting than tracking and killing.

GARDENERS

Of the million or so years that man has sojourned on this planet, for over 900,000 of them he made his way as a gatherer and lower hunter. His subsistence has been that of a savage for most of his existence.

The Neolithic Age saw the emancipation of man from the meager and relatively unreliable resources offered by wildlife. Through domestication of plants and animals the hunter became the farmer and the herdsman.

There is no reason to suppose that one or the other form of domestication came first. The domestication of both plants and animals was a gradual process which took place in a number of different parts of the world along independent lines. Domestication consists merely in controlled cultivation and husbandry. A domesticated plant is one that is useful to man and is cultivated by him. Dandelions are noxious weeds in the lawn to most persons, but cultivated dandelions may be purchased from vegetable stands in city areas settled by Italian-Americans.

The first steps in plant cultivation were probably taken in the area of weed elimination and control (a weed being any plant that is held to be undesirable). A patch of wild plants was tended, and weeds cut or uprooted. The Kwakiutl Indians' care for their wild clover patches would be an example of this. Clover beds were the properties of specific families, who dug them for their roots. The main roots were never dug and such pieces as were not considered good for food were, if they had been dug up, replaced in the ground for future growth.¹⁶

Real domestication begins, however, when seeds, roots, or shoots are deliberately planted or stored from one season to the next, for later planting to bring forth a crop. This calls not only for foresightedness and self-restraint (you can't eat your seed and plant it, too) but it also requires clearing of the forest and preparation of the soil—both arduous tasks. The idea of plant domestication is hard to come by, but even before the Age of Exploration had spread European traits over the world, the bulk of mankind's societies consisted of preagricultural gardeners. Most of North America was inhabited by hunters and collectors. However, all the Prairie and Eastern Woodland tribes south of the Great Lakes and the St. Lawrence River raised maize, beans, and squashes. The Southwest

¹⁶ E. S. Curtis, *The Kwakiutl*, p. 43.

Indians were intensive gardeners and growers of maize, as were all the Mexican and Central American tribes, the Andean peoples, and to a lesser extent those of northern and eastern areas of South America. Manioc was and is cultivated throughout the tropical rain forest of that continent.

Agriculture, which involves use of the plow, was never attained by the American Indians before the European invasion.

In the Old World only the peoples on the extreme fringes of the continental masses remained collectors or hunters in late pre-Columbian times. Across the north of Siberia, the Samoyed and Yukaghir hunters held a thin fringe, with the Gilyak on the northeast coast. Africa was given over wholly to pastoralists and food-growing peoples, except for the Bushmen, Congo Pygmies, and a few other scattered groups. All Indonesians, except for a few small groups, are gardeners or agriculturalists.

Agriculture in the Old World attained a continuous distribution from Europe and the Mediterranean scrub forests of North Africa into India by way of Turkestan through a narrow corridor, with a slender appendage down the valley of the Nile. Isolated agricultural areas appear in China and Indochina.

The domesticated plants of the Old World are numerous, but a half-dozen grains are the old Neolithic staples. Such grains as oats, wheat, rye,



Fig. 11-3. Ecuador Indians plowing with bullocks and wooden plow. (From Collier and Buitrón, *The Awakening Valley*, University of Chicago Press, Copyright 1949 by The University of Chicago Press, Copyright under International Copyright Union, Photograph by John Collier, Jr.)

barley, and millet are only modified grasses whose seed heads have been enlarged by selective breeding. Indeed, according to the Russian botanist Vavilov, in Iranian Asia Minor wild rye is looked upon as a noxious weed inimical to the growth of cultivated wheat and barley.¹⁷

Old World domestication of most plants took place in the Near East. The environment is mountainous (Type 8) with dry lowlands and humid highlands. Winters are rainy and cool, summers dry and hot. Sauer writes:

In this habitat the crops are fall-sown, make a large part of their growth of stalk and leaf in cool weather, and complete their maturity during the long summer days of warmest weather. These climatic adaptations made easy diffusion of such plants into northwestern Europe. . . . In the European lands there was still the same condition of a cool, moist starting period, though the start was shifted to spring, and maturity still took place during the long days of mid-summer.¹⁸

Old World farinaceous plants are sown broadcast.

In this process of development it would be wrong to think of any one tribe as being responsible for the domestication of all, or even one, plant. The process was long and slow, with many people and many tribes working upon the problem. However, there is little doubt that in the Old World, where plant domestication was first accomplished 15,000 to 20,000 years ago, the triumphant attainment was encompassed in the Iranian highlands.

Lightly forested highlands may strike the reader as strange places for the origins of gardening. Clearing forests is hard work, and it would seem at first careless thought that open country would be more suitable. However, two factors militate against horticultural origins in open lands. Deserts are deficient in water, even if the soil is friable. Archaeological evidence does not support the thesis that gardening first began in "irrigation oases" of the arid river valleys in the Old and New World. Grasslands are impenetrable to planting by peoples who do not have heavy plows. Even our own pioneers avoided the heavily sodded prairies, until special sod-breaking plows were developed (which was not so long ago). Although the best grain-producing lands in the world are the American and Russian prairies (Type 7), they have become so only under modern conditions. Tropical rain forests (Type 2) can be made to support gardens by primitive men, but the environment was not conducive to first efforts at plant domestication. Archaeological evidence and botanical facts do not indicate great antiquity for domesticated jungle plants.

Clearing the forest for planting requires energetic labor; it is not for

¹⁷ N. Vavilov, *Studies on the Origin of Cultivated Plants* (Bulletin of Applied Botany and Plant Breeding, Leningrad, 1926), pp. 109ff.

¹⁸ C. Sauer, "American Agricultural Origins" in *Essays in Anthropology in Honor of Alfred Louis Kroeber*, p. 285.

lazy men. But for people who are not rushed for time it can be effectively done with primitive tools by the "slash and burn method." Each tree is girdled by cutting a ring through the bark and cambium layer. Death follows. The dead trees may then be burned out or left standing. Their leafless branches no longer shade the ground. The weedless floor of the virginal forest is a light rich humus, and the gardeners simply plant among and around the dead stumps. Stumps are a serious nuisance only to the farmer with a plow.

Recent evidence has shown that American horticultural origins were probably diffusely centered in northern South America (not in the Mayan peninsula of Yucatán, as earlier theorists supposed). The tuberous potato was domesticated in the Andean highlands; the area where maize was first developed out of pod corn¹⁹ is undetermined, but the probabilities point to Paraguay or eastern Bolivia; peppers and peanuts come from Brazil;²⁰ and manioc and sweet potatoes were the original contributions of the prehistoric people of the tropical lowlands. It is obvious that American agricultural origins were multiple. Culture growth is always the result of contributions from many sources.

Maize became the most symbolically important of all aboriginal American foods, but it appears not to have been the first to be domesticated. It is quite possible that manioc and the potato were earlier forms. Americans, to whom potatoes are either Irish, Maine, Long Island, Idaho, or sweet, may be amazed to learn that the illiterate Aymara Indians of Bolivia are such fastidious potato connoisseurs that LaBarre recently listed 209 Aymara identifications for native potatoes!²¹

The use of manioc as a basic foodstuff by Amazonian Indians reveals a genuine ingenuity. Sweet manioc, which grows wild, gives relatively small yields. The domesticated forms with large yields contain much poisonous prussic acid. This necessitates a leaching process of some complexity before the manioc tubers can be converted to edible cassava. The roots, after being dug, must be sliced and fermented to free some of the poisons. Next they are pulped on hand graters and then wrung dry of liquids. The dried pulp must then be ground to a flour and heated to free the remaining volatile poisons. Safe bread can then be baked.

Beans and squashes also underwent domestication by the Indians, ultimately to become with corn "the triumvirate that forms the basis of much of American Indian agriculture."²²

¹⁹ Corn in which each kernel is protected by a pod covering.

²⁰ P. C. Mangelsdorf and R. G. Reeves, "The Origin of Maize" (*American Anthropologist*, Vol. 47, 1945), pp. 235-243.

²¹ W. LaBarre, "Potato Taxonomy among the Aymara Indians of Bolivia" (*Acta Americana*, Vol. 5, 1947), pp. 83-102.

²² G. F. Carter, "Origins of American Indian Agriculture" (*American Anthropologist*, Vol. 48, 1946), p. 1.



Fig. 11-4. Preparation of sweet manioc. Shipibo woman and child. Peru. (*American Museum of Natural History*.)

Although maize does form the symbolically most significant plant of the triumvirate (for it is the focus of much Indian ritual), it possibly was not as basically important as the bean. Maize is essentially a carbohydrate, while beans are protein rich. Linton²³ has challenged the conventional anthropological view, such as that expressed by Gudmund Hatt, that, "It was the maize cultivation that made possible the magnificent cultural evolution in the Andes, and in Central America, Mexico, and the American Southwest area."²⁴ Cultural development is closely related to the energy sources it controls. Linton, who emphasized the importance of protein as a complement to starch in an adequate energy-producing diet, suggests that the lowly bean meets this need and was the real key to American high cultures. Maize is more spectacular to behold but not dietarily and culturally as significant as it seems at first glance.

The roles played by wheat and barley in Europe and Asia Minor and by maize, beans, and manioc in the Americas are played by rice in Asia and Indonesia. Dry-rice cultivation is the simpler and more ancient method of growing this staple. Wet rice, grown on irrigated fields or paddies, rewards the great efforts expended in irrigation engineering by producing much larger yields than the more primitive dry-rice techniques. In India and China rice irrigation has replaced dry planting, but in west-

²³ R. Linton, in C. Hay, et al. (eds.), *The Maya and Their Neighbors*, pp. 32-40.

²⁴ E. C. Curwen and G. Hatt, *Plough and Pasture*, p. 207.

ern Indonesia irrigated rice agriculture has not yet reached the interior of the large western islands (Sumatra, Java, Borneo). As practiced by the Siang Dyaks of Central Borneo, whose methods are typical enough, each man selects a sloping plot for clearing and planting. If it is a new one, he cuts partially through the trees on the lower side of the slope. Large key trees at the top of the plot are then felled so as to smash down the lower trees. All are trimmed, left to dry, and after several weeks, burned. In all this he is usually helped by neighbors, whom he must help in turn. Work parties often get drunk on rice wine at lunch time, when the party phase washes out the work aspect of the joint undertaking.

Planting is done by poking holes in the ground with a pointed stick, after which a couple of grains of rice are dropped in. Weeding is done occasionally, but it is so disheartening a task that most gardeners prefer to clear a new field every two or three years. In Borneo, where culture is primitive and communities small, there is still more than enough land to support this method of land use.²⁵

High cultures that support large populations may enjoy no such margin of safety. The *milpa* system, as it is known among the Mayas, was (and still is)²⁶ basically similar to the *ku*, *kaingin*, or *jhum* system, as it is known in Borneo. In J. E. Thompson's account in *The Civilization of the Mayas*²⁷ we read that

The Maya system of agriculture was primitive. Land suitable for agriculture was prepared by burning off trees and undergrowth. After the first rains, the sower, with a bag of seed and a sharp-pointed stick, crossed and recrossed the field, making a hole with his stick in the ground at every pace, and throwing a few grains of maize into the pit. . . . At the end of the season the field was abandoned, and next year the Maya farmer marked out a new piece of land to be cleared and sown. In the course of time and with the large increase of population that undoubtedly occurred, the Mayas must have been driven farther and farther afield in search of virgin soil. The exhausted soils nearer home must have been resown after shorter and shorter periods of recuperation. In time the yield of the district would have fallen below the level of consumption, and, faced with evacuation or starvation, the people chose the former.

In this we have one of the theories to account for the decline and abandonment of the great urban centers of the Old Empire of the Mayas (320–890 A.D.). Morley has advanced the theory that intensive slash and burn gardening by the ancient Mayas resulted in the invasion of grasses that converted the tropical forest of southern Yucatán to tough sod sa-

²⁵ J. H. Provinse, "Cooperative Ricefield Cultivation among the Siang Dyaks of Central Borneo" (*American Anthropologist*, Vol. 37, 1939), pp. 77–102; reprinted in part in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 141–150.

²⁶ See R. Redfield, *The Folk Culture of Yucatan*, pp. 115ff.

²⁷ (Field Museum of Natural History, Anthropology Leaflet 25, 4th ed., 1942), p. 15.

vanna. With their primitive dibbles they were unable to pierce the sod, he thinks, and so by the natural consequences of their own efforts, they were driven from their cities.²⁸ Thompson's present view, however, relies on less direct factors than the effect of *milpa* farming on the soil or vegetation. Old Maya cities were not urban centers of population concentration. They were religious and court centers supported by *milpa* farms more or less evenly distributed for miles around, not clustered like European peasants beneath the walls of citadels. Such a pattern requires a pacifistic state of society. It is quite possible that the upset of the delicate social balance by the introduction of war forced the abandonment of Mayan centers in southern Yucatán around 900 A.D.²⁹ Whatever the true explanation, high cultures rest precariously, if the base is *milpa*.

Wet-rice irrigation was probably developed in India some 3,000 or more years ago, whence it spread into China, Southeast Asia, and western Indonesia. Prior to its penetration of Indonesia, yams, taro, and millet were the staple crops of this part of the world. In the central islands of Indonesia (the eastern Lesser Sundas and the southern Moluccas), American maize introduced in post-Columbian times has won out over rice as the staple crop, but in the extreme east, where Indonesia merges into Melanesia, sago prevails. Rice cultivation belongs to the Asiatic, not the Oceanic, province.

Wet-rice culture requires extensive water control and irrigation systems, which sustain and require heavy population density combined with societies that are confined to specific localities because of the amount of work that goes into the building and maintenance of the system. Some of the most populous areas of the world are those of wet-rice-growing societies in the Orient.

The economic organization of irrigation cultures is too complex for us to attempt to analyze here. Barton has given us a useful study of the Philippine Ifugaos,³⁰ to which the reader may refer, and Linton has published some illuminating materials on the social adjustments that were forced when a primitive dry-rice culture changed over to wet-rice techniques in Madagascar.³¹

To an even greater degree than is true of hunting technology, garden-

²⁸ S. G. Morley, *The Ancient Maya*, pp. 71-72.

²⁹ J. E. S. Thompson, "A Survey of the Northern Maya Area" (*American Antiquity*, Vol. 2, 1945), pp. 2-24.

³⁰ R. F. Barton, "Ifugao Economics" (*University of California Publications in American Archaeology and Ethnology*, Vol. 15, No. 5, 1922).

³¹ R. Linton, "The Tanala," in A. Kardiner, *The Individual and His Society*, reprinted in part as "The Social Consequence of a Change in Subsistence Economy," in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 350-356; also, *The Tanala, A Hill Tribe of Madagascar* (Field Museum of Natural History, Anthropological Series, Vol. 22, 1933).



Fig. 11-5. Ifugao rice terraces and settlements. Northern Luzon, Philippine Islands. (Jacques Anyot.)

ing techniques become woven into elaborate tapestries of magic and religion.³² Gardening gives greater food leeway to man than hunting, but the very fact that it leads to greater populations brings about two direct consequences: (1) There is a greater stake in the success of the food crop; and (2) supernaturalism is embellished as a projective aid to crop security. Where the magician once reigned, the secular experts in the Department of Agriculture now wrestle with the eternal problems of the “ever-normal granary.”

Pastoralism. All gardeners have some domesticated animals. They may or may not be eaten. Indeed, so frequent is the abjuration of the flesh of domesticated animals among their primitive masters that Lowie recently concluded that “the original reasons for keeping animals were not practical ones.”³³ Domesticated animals are kept for emotional reasons as pets or as objects of religious sacrifice. However, pigs, goats, and dogs,

³² Cf. B. Malinowski, *Coral Gardens and Their Magic* for an exhaustive analysis of this aspect of Trobriand culture.

³³ R. H. Lowie, *An Introduction to Cultural Anthropology*, pp. 51-53.

although not eaten, are not as economically useless as is often imagined. Hambly notes that goats, for instance, are ubiquitous and neglected in Africa; they are neither milked nor used extensively as a meat supply. But "goats pick their own food supply, and since they are almost omnivorous in their selection of vegetable food, there is no cost of maintenance."³⁴ What Hambly failed to note is that in their omnivorousness goats are good garbage disposers. So are pigs and dogs, a fact which has led Ashley-Montagu to suggest this as the original reason for the domestication of dogs in Neolithic times.³⁵

The fact that most primitive peoples ignore or are ignorant of the half-dozen practical uses for domestic animals seems to be what led Lowie to his conclusion.

The known utilitarian uses to which domestic animals can be put are (1) consumption of their meat and blood; (2) use of their hides; (3) use of hair or wool for weaving or felting; (4) milking and dairying; (5) load carrying or pulling; (6) riding.³⁶

The Chinese do not milk cattle and will eat no cheese or dairy products (although they are not averse to beef as food). East Africans make a cult of sour milk along with adoration of sacred cows and just plain cows. Africans, for all their preoccupation with sour milk, never acquired the art of cheese making, and butter is less often eaten than smeared in the hair or used for oiling the body. Beef is eaten only occasionally. Women may toil under heavy loads, but cattle must not be burdened nor set to pulling loads. In East Africa south of Abyssinia, the art of riding was totally unknown to the native peoples. So, although the cult of the cow is the dominant theme of most East African cultures, the use of the cow falls far short of full realization of all potentialities.

Of course, we, in our use of horses, reverse the situation. We ride them, make them haul burdens, and pet them. But we neither milk nor eat them. The Mayor of New York City in 1943 insisted that the eating of horseflesh is "immoral and uncivilized," and upon these lofty if narrow-minded principles he forbade the selling of horse meat as a wartime measure to relieve an acute meat shortage.

Pastoralism is an adjustment to ecological factors on the part of advanced primitives. Forest dwellers cannot become pastoralists, and dwellers in the grasslands and deserts cannot readily become gardeners. Men strive to penetrate all habitable areas of the globe. In dry grass and steppe areas men on the lower levels of economic development may be collectors or hunters. If they move on to higher levels, they must become herders. Only

³⁴ W. D. Hambly, "Source Book for African Anthropology" (*Field Museum of Natural History, Anthropological Series*, Vol. 26, Part 2, 1937), p. 596.

³⁵ M. F. Ashley-Montagu, "On the Origin of the Domestication of the Dog" (*Science*, Vol. 96, 1942), pp. 111-112.

³⁶ C. D. Forde, *Habitat, Economy, and Society*, p. 401.



Fig. 11-6. Domesticated cattle of the Bechuana, South Africa. (*Peabody Museum, Harvard University.*)

when civilizational techniques produce the plow may agriculturalists successfully move into the more favorable semiarid regions.

Pastoralism is preeminently an Asiatic-African economic complex. In Africa it covers the whole Sahara, where it centers on the camel and horse, as in eastern Arabia. In the northern Sudan and most of East Africa it combines with hoe culture, and in the extreme south the Hottentots and Hereros live on their cattle. The great Asiatic steppes, from the east shores of the Caspian to the boundaries of China, from the Himalayas to the Arctic wastes, support such eminently pastoral peoples as the Kazaks, Tatars, Altai, Kalmucks, and Mongols, and the reindeer-breeding Lapps, Ostyaks, Tungus, Yakuts, Yukaghir, Chukchi, Koryaks, and others.³⁷

In the New World only the Navahos became real pastoralists—and that only in modern times with sheep acquired from the Spanish. In the southern Plains such tribes as the Comanche became quasi herders but not pastoralists in the mid-nineteenth century. Their horse herds numbered in the thousands, but horses were eaten only occasionally, milked never, and used mostly for riding and trade.

³⁷ Cf. N. T. Mirov, "Notes on the Domestication of the Reindeer" (*American Anthropologist*, Vol. 47, 1945), p. 396.



Fig. 11-7. Navaho pastoralism. (*Farm Quarterly*, photograph by John Collier, Jr.)

Domestication of animals came late in human history. The dim brain of prehistoric man was slow to realize that some animals might better be made slaves to man's will than victims of his weapons. Yet once this realization dawned, in Neolithic times, it became the fashion to experiment with a variety of beasts. But of the hundreds of animal species, although many have been tamed from time to time, less than two dozen have attained any domesticated significance. Of these, the dog alone has world-wide distribution. Otherwise, the llama and alpaca in the Andean highlands, the guinea pig in the Guianas and Andes, and turkeys raised for feathers in the Southwest pueblos complete the list in prehistoric America.

In the Old World, primitive man had the dog, pig, cow, buffalo, yak, camel, horse, reindeer, sheep, goat, ass, chicken, duck, goose, pigeon, and peacock.

SUMMARY

An elemental feature of every culture is a complex of techniques for production, consumption, and distribution of food. The physiological need for anabolic replacement of used-up energy supplies in the body imposes a biologic imperative on every society so to organize its culture that at least minimal food requirements are met, if the society and its culture are to survive. The ecological adjustment of a culture to the

physical environment in which it operates is therefore of prime importance. Consequently the culture areas of the world are, in large measure, also "food-getting or subsistence areas."

The simplest and most primitive cultures of mankind are those whose subsistence economy is predominantly based upon hunting and collecting—the cultures of the food gatherers.

The vast majority of contemporary primitives are gardeners, sharing in the great Neolithic complex. Pastoralism represents a specialized adjustment to physical environments that are not suitable to gardening by people who possess only primitive horticultural techniques.

All primitive peoples reinforce their rational food-production methods with religious and magical practices that function psychologically to strengthen their sense of assurance that the food quest will not fail disastrously, and so allay the ever-present gnawing anxiety that their means of survival may not suffice. Many of the rituals also serve to reinforce, symbolically and in action, the interdependence and group solidarity of the members of a society and its lesser collective units.

Although there remains a possibility that the idea of domestication of animals and the cultivation of plants may have spread from the Old World into the New, the only domesticated animal brought from the Eastern Hemisphere into the Western in pre-European times was the dog. Because the specific plants cultivated by American Indians were (with the possible exception of cotton) entirely indigenous to the Western Hemisphere, and because the techniques of cultivation used in the New World were quite unlike those established in the Old World, it is inferred that New World horticulture (and, hence, the New World Neolithic complex) developed independently of Old World influence.

SELECTED READINGS

- de Schlippe, P.: *Shifting Cultivation in Africa: The Zande System of Agriculture*. A modern study based on anthropology and agronomy with very enlightening results.
- Forde, C. D.: *Habitat, Economy, and Society*. Contains condensed descriptions of the subsistence activities of a number of tribes and the relation of their social structure to such activities. Also presents a general comparative summary of the subject.
- Hill, W. W.: *The Agricultural and Hunting Methods of the Navaho Indians* (Yale University Publications in Anthropology, No. 18, 1938).
- Malinowski, B.: *Coral Gardens and Their Magic*, Vol. 1. A masterful and detailed study of the interrelation between social organization, supernaturalism, and gardening among the Trobriand Islanders.
- Richards, A. I.: *Land, Labour, and Diet in Northern Rhodesia*. How the Bemba tribe makes its living. See also the summary by M. Gluckman, "How the Bemba Make Their Living," in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 130–140.
- Steward, J. H.: *Basin-Plateau Aboriginal Sociopolitical Groups*. The ecology and livelihood of the peoples of the Great Basin desert.

CHAPTER 12. Housing

ONE might think that after a million years of experience man would have mastered the housing problem. The need for shelter is, after all, one of the most elementary of the basic needs of mankind. That the majority of humanity lacks enjoyment of decent, healthy housing is a sad reflection on the seamy side of man's technical and social incapacities. Rural hovels and crowded, dirty city tenements do put a roof overhead, but so does a doghouse. Rationalized, functional dwellings are within human vision but still out of reach for all but a precious few.

In the realm of housing man has remained throughout the ages strangely conservative. Again and again, he has modified his dwellings not at all or only with the most perverse obstinacy when improvements were known or at hand.

Certainly, he has not concentrated his interest or attention on the problem of providing functionally sound housing to anything like the degree of assiduity with which he has attacked problems of myth making, religion, art, song, and dance. If this sounds like gross exaggeration, consider the Navaho in his wood and dirt *hogan* making intricate sand paintings and performing his nine-day chants. Consider the Australian with his bush windbreak putting on elaborate initiatory rites. Or, consider the earth-lodge Pawnee with his elaborate *hako* ceremony.

It must be concluded that so physically elemental is the need for shelter that it is easily and simply satisfied. The feelings of insecurity and inadequacy that myth, magic, and religion strive to overcome are so deep and diffused that elaborate cultural inventions are devised to satisfy them. Further, man's earliest childhood experiences are closely associated with the particular type of dwelling possessed by his family. Basic habits are linked to a definite form of dwelling. Changes in house patterns mean changes in individual personality and, indeed, in family and kinship structures and function. More than that, changes in house form may very well necessitate changes in the entire societal structure. Navahos, for instance,

if they were to give up their widely scattered and separated hogans for the consolidated, communal dwellings of the pueblo type, would have to reorganize their lives and stop being Navahos as we now know them. They could not continue under their present amorphous system of social organization nor nurture their individualistic separateness. Contemporary Pueblo Indians, as they become Americanized, tend to build small individual houses away from the old communal structure. This takes place because in the rural West the original American pattern of separatistic dwellings is still closely tied to personal individualism and family exclusiveness, both important features of American private-property-based society. But at the very time that Pueblo Indians are gradually abandoning their communal apartment houses as a step in Americanization, industrial urbanism is forcing a greater and greater percentage of the American population out of separate dwellings into mass-housing structures.

The intimate and subtle relations between house forms and the functional manifestations of individual, familial, and kinship behavior and the more general aspects of social and economic institutions have been grossly neglected in anthropological and sociological literature. More than half a century ago, Lewis Henry Morgan attempted a pioneer study in the relation between house form and social living.¹ His keen mind perceived the possibility of close interrelations, but his study was vitiated by his preconceptions. His study of house forms and house life was tailored to fit his assumptions. The pertinent presuppositions were: (1) The gens (clan) was universally "the unit of social organization and government, the fundamental basis of ancient society."² (2) Since food and house hospitality are universal among American Indians, it follows that the law of hospitality implies common stores and communistic living in large households.³ (3) "These and other facts of their social condition embodied themselves in their architecture."⁴ From these premises Morgan attempted to demonstrate that the housing of the Iroquois, Pueblo Indians, and the Northwest Coast tribes were manifestations of primitive communism. The individualistic Ojibwas in their one-family huts gave him a momentary pause. They certainly were not practicing communal living in the nineteenth century, but he thought they must have done so in ancient times.

In all this Morgan grappled with some truth and a large amount of error. Social organization and type of dwelling *are* interrelated. Emphasis upon kinship tends to gather relatives under a common roof. This, how-

¹ L. H. Morgan, "Houses and House Life of the American Aborigines" (*Contributions to American Ethnology*, Vol. 4, 1881).

² *Ibid.*, p. 2.

³ *Ibid.*, p. 61.

⁴ *Ibid.*, p. 105.

ever, is not necessarily a communistic unit. It may be merely a joint-family household. And the clan, as we shall see later (Chap. 19), is not characteristic of the more primitive levels of human society.

Somewhat later Wilhelm Wundt⁵ expressed a different theory of the influence of dwelling types upon social forms. He observed that occupation of a small cave by a single family must have produced separatistic social attitudes and behaviors. On the other hand, occupation of a large cave by several families would tend to produce the joint family as a communal type of social organization. All subsequent dwelling forms and arrangements, he thought, continue to reflect this basic contrast between the single family unit and the multiple family dwelling. For Wundt the impress of early cave life was indelibly stamped upon subsequent social history.

CAVES

Caves have served as homes for man since the earliest Pleistocene times. If not too damp, they serve as comfortable shelters from beast, weather, and prowling enemies. Archaeologists always probe cave sites when looking for remains of ancient man, because the chances of finding some human refuse in a cave are always good. Not that there is the least evidence that primitive men suffered from agoraphobia. Nor is there much empirical evidence to support the psychoanalytical notion that our earliest ancestral dwellings were preferably caves, because in the snug, enveloping darkness of the comfy cavern our unsophisticated ancestors subconsciously recaptured the ineffable sense of security once enjoyed in the prenatal state. For it is, in fact, in the womb alone that the perfect environment is enjoyed. But if a cave was the best adjustment to psychic need that primitive man could work out, his was a sad state indeed.

We need not waste tears over this consideration, however. Although caves have served man well as homes (and the times may yet again come when any number of us will be grateful for a good deep cave), caves are few and men are many. There never were enough to go around. More than that, caves have a number of serious disadvantages as homesteads. They may not be well situated with respect to water and game. They cannot be moved around, and in consequence they inhibit the nomadic tendencies that are so characteristic of collectors and hunters. They are always unhealthy spots. Garbage accumulations are bothersome. If dampness is present, arthritis threatens, as well as rheumatic fever.

No, even Old Stone Age man chose an open camp site, climate permitting. And, by and large, mankind has preferred building shelters and houses to curling up in nature's holes in the ground. After all, our pri-

⁵ *Völkerpsychologie*, Vol. 7.

Fig. 12-1. Rendille nomad and portable home. Kenya, East Africa. (*British Information Service.*)



mate relatives do not patronize dens. Every one of them sleeps above-ground. Chimpanzees, gorillas, and orangutans fashion nests on the ground or in trees. Of these the orang does the best job.⁶

Just before dark the animal stands upright on a forked branch, using one arm as a support and with the other drawing in distant branches, breaking them, and piling them up all around him until he is in the center of a circle of twigs 45 cm or more in height. He then breaks off smaller twigs and puts them across to form the floor of the nest, next comes a process of stripping leaves from the branches to line the nest. These are pressed into the crevices. Finally, the orang lies down and draws over himself and interlaces the remaining twigs, which are piled up, so that a domelike roof covers him completely.

WINDSCREENS

There are no universal house forms among men, but the simplest homes of wandering food gatherers are not much more than nests. Murdock describes the usual Tasmanian shelter as "a simple windbreak, constructed of interlaced boughs or strips of bark in the form of a crescent and open on the leeward side."⁷ This is the exact counterpart of the Shoshones'

⁶ E. A. Hooton, *Man's Poor Relations*, pp. 124-125.

⁷ G. P. Murdock, *Our Primitive Contemporaries*, p. 5.

windbreak used in summer wanderings. The natives of Patagonia huddled before similar shelters made of skins. For more permanent settlements beehive-shaped grass houses, called *wickiup*, were the Shoshones' highest attainment in housing.

The Arunta *wurley* is no more than a lean-to constructed of leafy branches laid against a horizontal pole supported in the crotches of two upright sticks set into the ground 6 to 8 feet apart. In the jungles of the Malay Peninsula Negrito Pygmies build lean-tos of palm leaves on a frame very much akin to the *wurley*. The hut of the African Bushman is only a dome of light sticks not more than 5 feet high and thatched with straw (Fig. 12-2).



Fig. 12-2. Bushman brush shelter. (Peabody Museum, Harvard University.)

HUTS

Thus the homes of the most primitive peoples of modern times are hardly more ingeniously devised than are the nests of the great apes. They are little valued and readily abandoned—hardly to be considered as real property. However, they have possibilities. Elaborations of these little hovels of grass and sticks have served to house the greater part of mankind in the eras of precivilization. Throughout the vast areas of the tropical rain forests and the woodland areas, pole and thatched houses made of vegetation prevail. They may be semispheric domes, as the Ojibwa bark *wigwam* or the South African hut of the Zulu and Hottentot. Or they may be cones, as the Shoshonean adaptation of the Plains Indian

tipi. But more commonly, they will be found to be oblong, gabled structures formed by joining two lean-tos at the ridge in the form of a pup tent. The gabled structure, however, is almost always raised on walls. By such simple means the internal cubage, or volume of usable living space, is greatly increased without much additional effort. The additional effort is nevertheless sufficient that except for certain Mongolian tribes only sedentary peoples expend it. This means that such houses are generally confined to those people who have attained a gardening economy or have a dependable localized source of food such as fish. In Indonesia and Melanesia and again in South America, such houses are raised on stilts as a protection against vermin, flood water, and excessive dampness during the rainy season, and often as a defense against marauders. In the coastal areas of the Melanesian Islands pile dwellings are commonly built over the waters of lagoons, just as the Neolithic lake dwellers of Switzerland built their homes on the shores of the sub-Alpine waters (Fig. 12-3).

The walls and roofing of primitive houses are variously made of snow, thatch, bark, mats, hides, felt, mud, planks, or stones. Thatch and mats



Fig. 12-3. Dyak pile dwelling. Borneo. (Peabody Museum, Harvard University.)

prevail in tropical forest regions (Fig. 12-4), but in the Puget Sound area mat houses were common for summer use. Bark was extensively used in the eastern (temperate) woodlands of North America. Hides were in common usage on the Plains and among Eskimos for summer tents. Felt, used in the same manner as mats or hides, finds preference among Mongols and culturally related Asiatics. Mud is used either as covering for earth lodges in temperate or subarctic regions or as wall material in semi-

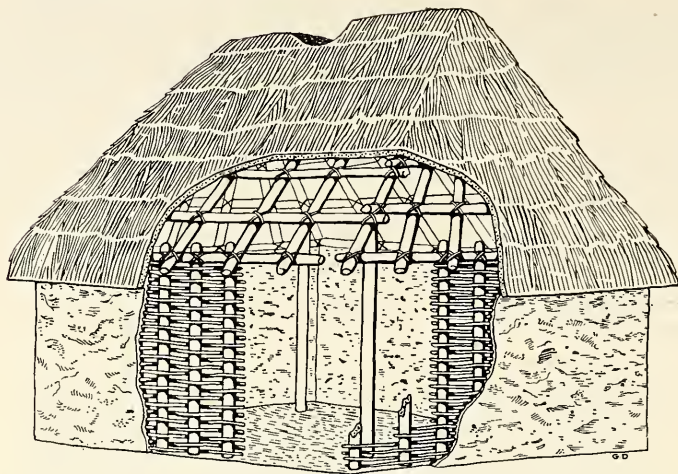


Fig. 12-4. Construction of the rectangular, gable-roofed house with mud-on-wattle walls of the prehistoric Middle Mississippi Indians. (*Chicago Natural History Museum.*)

arid regions where rain will not too quickly reduce such a house to a puddle. Plank houses were concentrated on the Northwest Coast of North America (Fig. 12-5) and nearby Siberia. Stone houses were built only by extremely sophisticated primitives—Mayas, Aztecs, Incas, et al., in Central and South America, Pueblo Indians in the Southwest, and the early predecessors of Mediterranean civilization.

THE PIT HOUSE

A distinctly different line of development in house forms is to sink the floor of the house into the ground before raising the superstructure above it. This technique is adapted to the conditions of temperate climates with cold winters. For obvious reasons, it never occurs in the tropical areas where the ground is too soaking wet. The semisubterranean house has two advantages: (1) It is easier to keep warm, and (2) it can be made roomy without raising high side walls. The first reason is the functionally effective one, since many primitive people have solved the problems involved in getting sufficient inside height when building above-ground.

The earliest known house sites, which date from the Mesolithic period (ca. 12,000 B.C.) at Campigny in France and elsewhere, are shallow pits over which half-dome superstructures were apparently raised.

Among recent primitives the pit house has found greatest favor with numerous peoples of western North America and North Asia. The description of the pit houses seen by Lewis and Clark just below The Dalles

of the Columbia River could very well have applied to the Campignian house types of 14,000 years ago:

They are sunk about eight feet deep [the captains wrote] and covered with strong timbers, and several feet of earth in a conical form. On descending by means of a ladder through a hole in the top, which answers the double purpose of a door and a chimney, we found that the house consisted of a single room nearly circular and about sixteen feet in diameter.⁸

Almost identical words describe a traveler's view of the pit dwellings of the Samoyed tribes of Siberia: "They lived in little, half underground lodges, with circular upper parts and without windows. In the middle of the latter there is a hole, through which smoke and people pass."⁹

Here we have the parallel occurrence of two similar culture traits on separate continents. In this case, they do not represent independent inventions, however, for the combination of facts covering their archaeological distribution and details of structure indicates clearly that this mode of dwelling, which was in frequent use in Late Pleistocene Siberia and

⁸ M. Lewis and W. Clark, *History of the Expedition of Captains Lewis and Clark, 1804-05-06*, Vol. 2, pp. 253-254.

⁹ Olearius, *The Description of a Journey in Moscovia*, pp. 167-168.

Fig. 12-5. Haida Indian plank house with totem pole. Queen Charlotte Islands, British Columbia. (Peabody Museum, Harvard University.)



survived into the present century among the sedentary fishing cultures of that bleak land, was carried into western North America by very early migrants from the Asiatic mainland.¹⁰

PUEBLOS

From pit house to the great five-storied apartment buildings of the Southwest Pueblos is a far cry across the span of a millennium.

Three main archaeological patterns of prehistoric culture have been found in the Southwest. The first is the Anasazi, of which the living Pueblos of today are a part. Because of its geographical localization on the high plateaus of northern Arizona and New Mexico and southern Utah and Colorado around the Four Corners,¹¹ it is sometimes referred to as the *Plateau culture*. It must not be confused with the ethnologist's Plateau Culture Area, which is located on the Columbia River Plateau. The second is the Hohokam, also called the *Desert culture* for its location in the central and southern Arizona deserts. The third is the Mogollon-Mimbres, also known as the *Mountain culture*, because of its association with the mountainous area of southeastern Arizona and southwestern New Mexico. In their earliest known phases (about 2,000 years ago) each of these cultures included pit houses as the dwelling type (Fig. 12-6).

The evolution of the Anasazi pattern begins with what is known as the *Basket Maker period* (100–500 A.D.). Basket Maker houses were con-

¹⁰ Cf. W. Jochelson, "Past and Present Subterranean Dwellings of the Tribes of North Eastern Asia and North Western America" (*Proceedings of the 15th International Congress of Americanists*, 1907).

¹¹ The only place in the United States where four states touch each other.

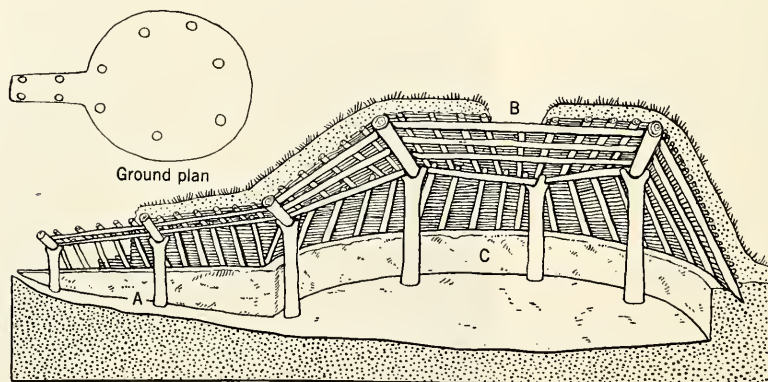


Fig. 12-6. Cross section and ground plan of a prehistoric Mogollon pit dwelling: A, entrance; B, smoke hole; C, excavated earth wall. (Chicago Natural History Museum.)

structed of inclined posts, poles, and twigs laid horizontally to form a dome around and above a saucerlike pit 10 to 20 feet in diameter. The frame was plastered over with mud. These individual houses were built in small groups, either within shallow caves or in the open.

In the succeeding Modified Basket Maker period (500–700 A.D.) pit houses still prevailed. They now consisted of a framework of four or five uprights supporting a flat roof. Entrance was gained either through the smoke hole over the fire pit or through a projecting passageway on the south side of the house. A low ridge of mud separated the south from the north half of the house. A new type of feature that marked this period, however, was the building of long, flat-roofed structures of poles and mud that housed two rows of contiguous rooms. Some of these buildings were in the shape of crescents. Two lines of architectural development had emerged.

In the period of the Modified Basket Maker, the pit houses were used for ceremonial and dwelling purposes. The multiroomed surface houses were apparently used mostly for storage. Later, in the Pueblo periods, the pit house evolved into the underground ceremonial chamber or *kiva* (Figs. 12-7 and 12-8). The aboveground storage rooms became the multiple apartment houses for which the Pueblo Indians are justly famous.

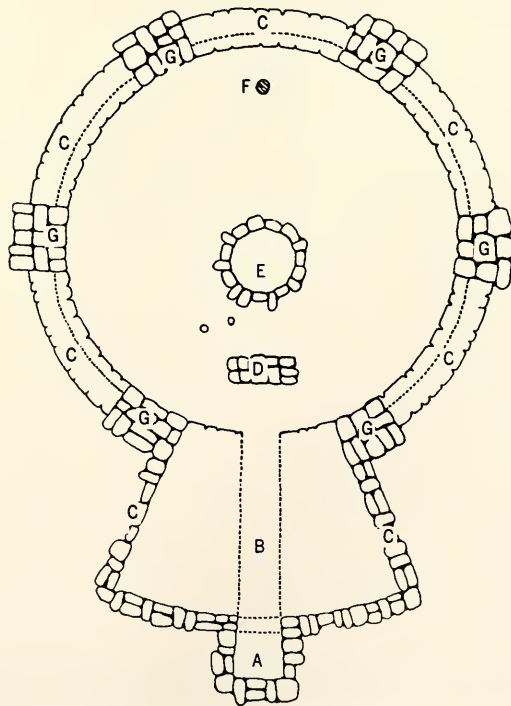


Fig. 12-7. Ground plan of a Mesa Verde type kiva. This so-called key-hole type is said by contemporary Pueblo Indians to represent a kachina mask. Key as in Fig. 12-8. (Chicago Natural History Museum.)

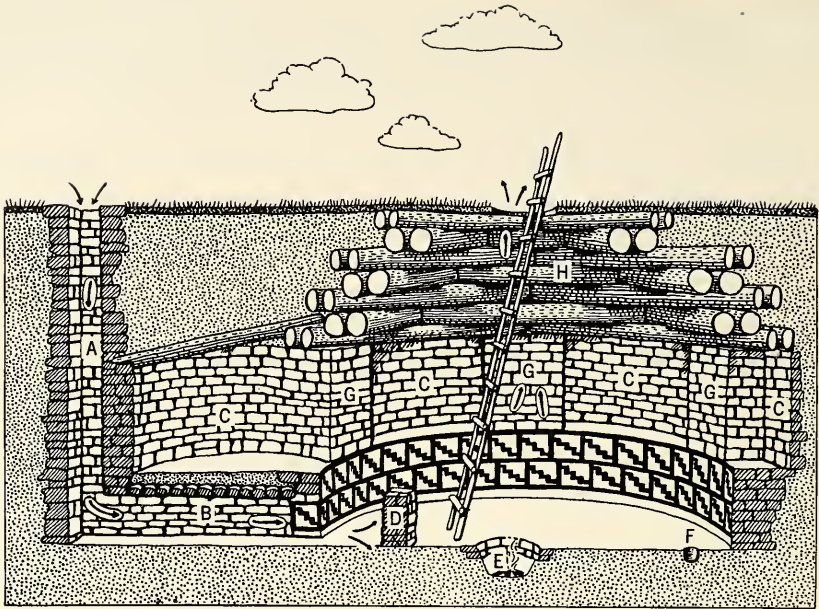


Fig. 12-8. Cross section of a Mesa Verde type kiva: A, vent; B, air duct; C, walls; D, deflector and back wall for altar; E, fireplace; F, sipapu, or entrance to underworld; G, pilasters; H, roof timbers. (*Chicago Natural History Museum.*)

The climax was reached between 1000 and 1300 A.D. in the Pueblo III period. To this period belong the famous cities in the caves, including Cliff Palace in Mesa Verde National Park. Of the open sites of this period, Pueblo Bonito in Chaco Canyon, New Mexico, is best known (Fig. 12-9). These buildings contained hundreds of rooms built of coursed masonry walls rising often to four stories. The modern pueblos are merely shrunken survivals of the great period.

Between the communal houses of the Pueblos and the general configuration of Pueblo culture there is a close nexus. The pueblos of the Great Period were defensive citadels as well as domiciles. The outer ground-level walls of the open-site pueblos were blank surfaces with no doors or windows. To get in a house one had to climb to the roof and go down the smoke hole, as in the pit house. To the hostile outer world the pueblo turned its back. It faced inward upon the court in which the public dances of its rich ceremonialism occurred. The great building formed a compact, architecturally integrated, in-turned whole. The members of the pueblo were forced to live in the closest intimacy with each other; not just the members of one family, but all families, all clans were piled together in a great heap. The cooperative emphasis of Pueblo life was required by the nature of their housing, if nothing else. And,



Fig. 12-9. Masonry construction of Pueblo Bonito, a Pueblo III ruin, Chaco Canyon, New Mexico. (Peabody Museum, Harvard University.)

of course, their housing could not have come into being had they not simultaneously been developing cooperative values. But the crowded intimacy of Pueblo living seems also to have left its impress in the form of excessive touchiness, backbiting, fear of witchcraft, and factionalism. "Chronic cabin fever" is the diagnosis of W. W. Hill. "Cabin fever" produces centrifugal forces pushing toward breakup of the pueblo. Well-integrated religio-ceremonial structures counteract this tendency to a great degree in Pueblo society. In the political sphere, however, the Pueblos have failed in the development of governmental mechanisms that combine reasonably centralized authority with flexibility in the handling of divergent interests. This is, of course, the eternal problem of healthy government. In the case of the Pueblos, their compact form of housing contributed to an intensification of the imperative need for political skill.

We would agree with the conclusion of Steward in speaking of the Basket Maker and Pueblo I cultures, "It is difficult to reconcile the division of the early villages into small house clusters with any other social unit than the unilateral lineage or band."¹² Steward and Titiev¹³ both suggest that a movement of consolidation of independent clans or bands in Pueblo II times resulted in the building of communal houses. "The formally separated small groups are amalgamated, but do not lose their

¹² J. H. Steward, "Ecological Aspects of Southwestern Society" (*Anthropos*, Vol. 32, 1937), p. 99.

¹³ M. Titiev, "Old Oraibi" (*Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University*, Vol. 22, No. 1, 1944), pp. 96-99.

social and ceremonial integrity.”¹⁴ And because these formerly discrete groups did not lose their integrity when compressed into the larger pueblo units, plus the irritability engendered by too close living, vindictive factionalism is an inherent aspect of Pueblo life. Quarreling has led again and again to the breakup of pueblos and the establishment of new settlements. The hundreds of ruined pueblos that make the Southwest an archaeologist’s paradise are rich testimony to the long Pueblo struggle to adjust their house forms to their social conservatism.

Earlier in this chapter it was remarked that the Navahos could not adopt the Pueblo house form and remain Navahos in spirit and action. We have seen something of the difficulty the Pueblo Indians themselves have had to reckon with in the solution of their housing problem. Those who have wondered how it is possible for the Navahos after centuries of contact with the Pueblos—centuries in which they have absorbed much of Pueblo ritual imagery and arts—to live even yet in wretched log and mud hogans, when they have for so long had the exemplar of Pueblo masonry houses before them, may find the answer in the Navaho’s devotion to his form of social organization. Present-day Navaho social forms are undoubtedly much closer to the kind of society that was enjoyed by the Basket Maker and Pueblo I peoples than are those of the modern Pueblo Indians. The scattered Navaho communities of individual hogans are not greatly different from the ancient open-site pit-house villages of the Anasazi.

THE PLAINS INDIAN EARTH LODGE

Far to the northeast in the great valley of the Missouri River and its drainage the advanced, sedentary gardeners (the Village tribes of the Plains: Mandan, Hidatsa, Arikara, Omaha, Pawnee) lived in so-called “earth lodges” that were impressive enlargements of the pit-house idea. In construction, a stick was thrust into the ground at the place to be occupied by the fireplace. This served as the focus for a 10- to 30-foot rawhide rope that was used to describe a complete circle. The sod within the circle was removed and the floor was excavated about 1 foot deep. Crotched poles 10 feet high were set within the circle every 8 feet or so and joined with horizontal beams. Midway between this circle of posts and the fireplace four to eight large crotched pillars were raised in a square or circle. These, too, were joined by beams. Posts for an entrance hall were also set. Palisaded walls of split posts were laid against the frame. Long, tapering tree trunks formed the roof. Above the fireplace a 3-foot smoke opening was left. Outside the walls and roof, willow withes were

¹⁴ *Ibid.*, p. 96.

horizontally lashed and then covered with a heavy thatch of coarse grass. Over this was placed a thick coating of sod laid to lap like shingles. Thus by combining logs, thatching, matting, and mud a truly impervious, if lightless, habitation was manufactured. To the Omaha Indians an earth lodge was a mansion, a tangible evidence of social importance, for "the erection of this class of dwelling required considerable labor, hence only the industrious and thrifty possessed these lodges." Others lived in tipis. Usually only one family was housed in a lodge, but if there were two, each took one side.¹⁵

JOINT FAMILY HOUSES OF THE JIVARO AND IROQUOIS INDIANS

The buildings of the Great Pueblo period were properly communal dwellings. Communal houses of a different sort occur in parts of South-east Asia, South America, and in interior New Guinea. The notorious head-shrinking Jivaros of eastern Ecuador exemplify the South American pattern. The unit of Jivaro social organization is the patrilineal family group living under a single roof. "Such a household is quite independent and self-sufficient, being subservient to no one."¹⁶ The typical Jivaro house is about 75 feet long and some 40 feet wide, elliptical in shape, with parallel sides and rounded ends. The walls are made of 10-foot laths of palm or bamboo lashed vertically to the frame. The roof is thatched. At each end of the house is a door of heavy planks, which must be lifted and set aside to gain entrance. These doors are barred from the inside. An interesting sexual dichotomy reserves one door for men only and the other for women. In like wise, one half of the interior is for men, the other half for women. Each man has his private sleeping platform against the wall on his side; each woman has her platform on the woman's side. Women's platforms are enclosed with mat walls. The men seek no such privacy. Thus, within the *jivaria* separation is based upon sex. Although several conjugal families may be living in a single house, they are not spatially separated on a family basis. Most lamentably, we know nothing about interpersonal relations within the household group, or how the Jivaros manage their sex life.

In Jivaro society there are no clans, villages, or other forms of social organization beyond the isolated household, except a loose and amorphous federation of five or six households under a common war leader.

In the long house of the Iroquois Indians we find an internal organiza-

¹⁵ A. C. Fletcher and F. LaFlesche, *The Omaha Tribe* (Bureau of American Ethnology, Annual Report 27, 1911), p. 88. See also G. R. Wilson, "The Hidatsa Earth-lodge" (*American Museum of Natural History, Anthropological Papers*, Vol. 33, 1934), p. 5.

¹⁶ M. W. Stirling, *Historical and Ethnographical Materials on the Jivaro Indians* (Bureau of American Ethnology, Bulletin 117, 1938), p. 38.

tion more typical of joint family households. The structure of an Iroquois long house is something like that of a Quonset hut. A roof of slabs of dried bark is laid on vertical walls. The house may be enlarged or shortened merely by adding or removing sections at either end. Doors are at the ends, with an open passage down the entire house, which in one instance was 100 yards long—the length of a football field. On either side of the passage were cubicles about 12 feet wide and deep, closed on the sides but wide open to the passageway, like the long corridor of bedrooms in the Tuileries. Murdock refers to these as apartments.¹⁷ More seemingly, they were compartments. At the back of each was a sizable shelf, 6 feet deep and the width of the cubicle. Here a whole conjugal family slept at night. On the back wall was a shelf for utensils, and between each living compartment and the next was a storage closet. A number of closets were kept at either end of the house, too.

Now who lived in this big building, and what were their arrangements? Each long house “belonged” to a lineage of related women.

At the head of the long house was an influential older woman. The household certainly included all her daughters and their husbands and children. It usually included her sisters and their families as well, and also the families of her married granddaughters. All the women of the long house, in theory at least, belonged to the same clan. The long house bore the name and clan insignia of its dominant matrilineal family (except in the case of the somewhat virilocal Seneca tribe). Married men were supposed to move into the long house of the wife, but the son of an influential mother married to a girl from a family of less account might choose to stay in his mother’s home. And, of course, since the Iroquois were given to adoption of captive enemies as replacements for dead relatives, there were always some of these in the household.

The women could throw out their husbands at any time. For the dispossessed divorcé there was nothing to do but to pick up his gear and get. He had no legal claim on children or home.

The social organization of the Iroquois long house was that of a joint matriarchate (see the discussion of the composite unilineal family, pp. 334–337). Segregation within the long house was not Jivaro-wise by sexes but rather by conjugal families. Each woman with her husband and bratlings had her cubicle. Eating was partly a joint family, partly a separate family, affair. Each conjugal family shared a cooking fire with the occupants of the opposite compartment. Down the center of the passageway lay a hearth for each pair of families.

Iroquois long houses could encompass quite a conglomeration of relatives. But they did not pose the onerous dilemma that bedeviled the

¹⁷ Murdock, *op. cit.*, p. 298.

Pueblos. Living was close, but the entire village was not housed in one building. A village consisted of several to many long houses within a protective palisade. A number of villages together made up a tribe (whereas among the Pueblos each village was usually a tribe in itself). The six original Iroquois tribes made up the Iroquois nation. Loyalties reached out far beyond the lineage group in the long house. Further, the Iroquois were militant expansionists. They could release their internal tensions in outward aggression.

As the cultural environment of the Iroquois changed under the impact of white colonization of their country the long-house organization began to break down, giving way to log houses of smaller dimensions, until, by 1800, the long house as a dwelling form was no more.¹⁸

In Southeast Asia, where long houses are common, they tend to be associated with clans.¹⁹ Where the village unit is formed on territorial rather than kinship bonds, as in Java and the Philippines, each family has its own separate house. The lineage and joint family do appear to go together. Morgan had a certain amount of truth to back him up. But lineages and clans do not by any means always live in long houses, while some clanless people do. The relationship is not absolute.

SUMMARY

All cultures contain patterns for the physical establishment of a home. House types are variable in structure, depending upon the nature of the local climate and materials available, the kind of subsistence economy indulged in, and the nature of the social organization of the society and the kinds of aggressive threats it must face from enemies.

Nomadic peoples in the jungles, semideserts, and arctic wastes ordinarily throw together simple temporary shelters. Settled peoples in the wet lands build fixed abodes of wood and thatch; in the dry lands stone and mud are more commonly used. The pit dwelling is a northern-latitude phenomenon of the European Neolithic and later Siberian and western North American areas.

In societies built around the joint-family or localized lineage, a single housing unit serves as a common dwelling in many cultures both prehistoric and contemporary. Such joint-family houses exemplify the close interrelationship between social and architectural forms. The Navaho reliance on the individual hogan and Pueblo Indian use of the communal

¹⁸ W. N. Fenton, "Locality as a Basic Factor in the Development of Iroquois Social Structure," *Symposium on Local Diversity in Iroquois Culture* (Bureau of American Ethnology, Bulletin 149, 1951), pp. 35-54.

¹⁹ E. M. Loeb and J. O. M. Broek, "Social Organization and the Long House in Southeast Asia" (*American Anthropologist*, Vol. 49, 1947), pp. 414-425.

apartment house, although both have simultaneously inhabited the same area for a thousand years, also illustrate the effect of general cultural configuration upon architectural forms.

SELECTED READINGS

- Fortes, M.: *The Web of Kinship among the Tallensi*, Chapter 3, entitled "The Homestead and the Joint Family." A model study of the functional interrelation of home and family.
- Loeb, E. M., and J. O. M. Broek: "Social Organization and the Long House in South-east Asia" (*American Anthropologist*, Vol. 49, 1947), pp. 414-425. A useful analysis of the relation between lineage and homestead.
- Murdock, G. P.: *Our Primitive Contemporaries*. Sections in each chapter devoted to the ethnography of a tribe describe a variety of house types.
- Steward, J. H.: *Theory of Culture Change*, Chapter entitled "Ecological Aspects of Southwest Society." This includes a highly suggestive historical treatment of the relation of dwelling patterns to social organization.

CHAPTER 13. Handicrafts

THE WORKADAY world is the humdrum world of the manipulators of tools. Man is a toolmaker and a tool user. There are few operations that he performs with his bare hands or feet.

Dawn man fashioned the first eoliths, the forerunners of the vast fabricating machines of modern technology. From the first clumsy artifacts of a million years ago to the mechanical marvels of the present, man has steadily improved his mechanical devices in a continuous effort to meet his physical needs and psychic wants more satisfactorily.

STONE IMPLEMENTS

Almost all primitive peoples were dependent upon stone as the material from which to make cutting and scraping implements. The greater part of the prehistoric span of man's existence in Europe was the Stone Age. In North and South America, although the peoples of high culture knew metallurgy, it is proper to say that all the Indians were Neolithic men, as were all the Oceanic peoples of the Pacific, although it must be remembered that on coral islands rocks other than flint had to be used. Africa south of the Sudan was given over to tribes with lithic technologies, while many of the Sudanese Negroes were well advanced in ironworking and bronze casting.

Although the course of European Paleolithic and Neolithic cultures has already been indicated, a discussion of stone artifacts is still very much in order.

The most fundamental classification of stone implements is that which draws a distinction between chipped and abraded (polished) artifacts. Method of production is the criterion. We have already seen that chipping was the exclusive stoneworking technique of the Old Stone Age. Although it seems most reasonable to suppose that Early Paleolithic men must have experimented with abrasive techniques, the economy of effort

found in chipping was sufficient to win preference for that method for hundreds of thousands of years.

Flint, chert, and chalcedony are preferred materials because of their fracture qualities. By percussion delivered by means of a hammerstone, which is a round or ovaloid igneous or metamorphic rock held in the hand, a fresh nodule of flint may be forced to yield flakes from its surface. Since the outer edge of the flake (that which is farthest removed from the point of percussion) is almost always thin and sharp, many flakes may be used as crude cutting or scraping tools with no further preparation. The residual core of the nodule is also suitable for use as a crude ax. Thus are formed the two basic subdivisions of chipped implements, flake and core. The addition of pressure flaking makes it possible for skilled workmen possessing high-quality flint to elaborate specialized forms of flint artifacts. The basic flake implements possessed by almost all primitives are scrapers, points, and awls. Scrapers are used mostly in the preparation of skins or in the shaping of wooden shafts for weapons and tools. Points are used as penetrating heads for various kinds of projectiles (darts, arrows, spears), or as knife blades. Cores may also be worked into scrapers and points, but generally they are shaped to form hand axes or celts.

Abrasion is used to shape rocks that fracture poorly or with great difficulty. The use of wet sand or sandstone is almost an essential for the process. The outer surface of an intended artifact may be worn into shape by rubbing on sandstone or with a piece of sandstone held in the hand. Tough stone is even sawed in two by the use of thin slabs of sandstone or by pouring wet sand under a piece of wood that is rubbed back and forth. Sawing, however, is relatively rare.

Drilling through solid stone has been within the capabilities of most primitive peoples since Neolithic times. The drills are ordinarily nothing but wooden rods or tubes rotated between the hands or by mechanical means. Again, wet sand does the actual cutting. But think how many drills must be used to go through a 2-inch piece of basalt! Although rotation between the hands was unquestionably the most primitive and earliest drill technique, it is probable that Neolithic man hit upon the bow drill, since he had the bow and arrow. Also, in later Neolithic times he produced many polished axheads with drilled transverse haft holes. However, in modern times hand drilling has had a much wider distribution than the bow drill, even among peoples who possess the bow and arrow; thus it by no means follows automatically that the one leads to the other. The trick of the bow drill, as every Boy Scout who has passed his fire-by-friction test knows, is to wind the bowstring once around the drill, hold the top of the drill in a hand socket, then saw back and forth with the bow like a cello player. The Eskimo takes a bite on the socket instead of a handgrip. The strap drill works on the principle of the bow drill except that there is no bow. The ends of the working thong are simply held

in the hands and drawn back and forth. Really clever is the pump drill. By first winding up the string on the drill shaft and then pushing the crossbar down, a spin is imparted to the drill. The momentum given to it by the stone or pottery flywheel automatically rewinds the string. Another downward push keeps it spinning.

The process of drilling a hole in a stone hammer head is actually the most advanced technique for hafting purposes. The simplest form of hafting is to bind a strip of sapling around the stone. Elaborations of this technique, using cord or rawhide, occur in all parts of the world. An advantageous improvement is to groove the axhead by grinding or pecking in order to give a firmer setting to the head. Staghorn sockets were developed by Neolithic Swiss lake dwellers to form a type of compound hafting for their celts. Elaborate compound haftings are characteristic of eastern New Guinea, where, in the Mount Hagen district, hafted stone axes reach a sublime degree of monstrosity (Fig. 13-1).

Mauls of stone differ from axes only in that axes are intended for chopping and therefore have sharp edges. Mauls are intended for crushing or driving and therefore have round or blunt edges. What appear to be grooved mauls but yet have no abrasion scars from use as mauls are apt to be either loom or snare weights, or fish-net sinkers.

Other common primitive creations are milling stones consisting of a broad flat base rock, often with a wide shallow groove in it, and an oblong rounded stone with which to crush seeds or nuts. Following the custom



Fig. 13-1. Polished stone ax from the Mt. Hagen district, New Guinea. An example of artistic overelaboration of a utilitarian object. (*Museum of Modern Art.*)

of Southwestern archaeologists, the base stone is called a *metate* (Aztec, *metlatl*), and the grinding stone (muller) is called a *mano* (Spanish, hand).

WOODEN IMPLEMENTS

In Chapter 6 it was asserted that Stone Age man relied as much upon wood for artifacts as he did upon stone. This statement rests upon inference from recent primitive cultures rather than direct archaeological evidence. Wood is perishable, but all primitives make considerable use of wood. Eskimos use relatively less of it than most peoples, for the simple reason that trees do not grow in the Arctic. Northwest Coast Indians, endowed as they are with excellent workable cedar, have turned wood to an unusually great number of uses. A Northwest Coast inventory would include plank houses, wooden totem poles, adze handles, canoes, paddles, clubs, bows, arrows, helmets and slat armor, bowls, dishes, spoons, boxes, rattles, batons, and masks in a profusion of carved and painted varieties.

Eastern Woodland Indians preferred to use the bark of the birch for canoes, boxes, and housing; Plains Indians seized upon hides, and Pueblo Indians use wood only sparingly. Skillful in pottery, they prefer utensils of clay and homes of adobe and stone. Tropical tribes in Africa, Oceania, and South America, who find themselves in rain forests with plenty of wood at hand, use it extensively. Polynesian wooden clubs are a sophisticated transformation of the cave man's bludgeon (Figs. 13-2 and 13-3).

A universal and fundamental use of wood that should not be overlooked is in fire making. We have discussed the drill as a stone perforator. It is even more widely used as a fire starter in America, Asia, and Africa. By setting the drill in a wood socket and pouring dry tinder about it, it is possible to generate enough heat by friction to start a fire (Fig. 13-4a and b). Hand rotation, strap, bow, and pump methods are all used. The fire plow is a simpler but less efficient device. Named by Tyler the "stick and groove method," the implement consists of a grooved board lying on the ground and a blunt stick, which is pushed back and forth with vigorous pressure until friction-generated heat kindles fire—a method con-



Fig. 13-2. Carved Fijian war club. (University of Pennsylvania Museum.)

centrated primarily in Polynesia. In Indonesia a variant form is preferred, the fire saw. In this method a piece of split bamboo is sawed so rapidly that the dust ignites.

BONE AND SHELL

The skeletons of vertebrates and the shells of crustaceans find their uses in primitive material culture. Unworked shells make serviceable if not durable scrapers and saucers. Caribbean Indians rubbed heavy seashells into polished celts like those of stone. The long bones of birds and animals, splintered and polished to a smooth point, have always found favor as perforators and awls, and the earliest needles were always made of slivers of bone. Fishhooks made of bone occur almost everywhere. Harpoon heads of bone, antler, or ivory were characteristic of Magdalenian man and Eskimos alike.

One of the most interesting bone implements is the garden hoe produced by Indians in the eastern Plains area from the shoulder blade of the bison. The scoop-shaped scapula was lashed at right angles to a wooden handle and used exactly as we use a hoe today. Alaskan Eskimos use whale scapulas as handleless snow shovels.

TRAPS

Traps and deadfalls have been previously mentioned as primitive food-getting devices. The ingenuity of such machines, as in the Arawak Indian bow-and-arrow trap shown in Figure 13-5, occasionally reaches Rube Goldberg proportions. This is an unusual variation of the much more common spring trap in which the animal puts his head into a noose to get the bait, releases the trigger, and is hoisted, if not by his own petard, at least in consequence of his own action. Deadfalls are forms of traps in which the animal who tugs at the bait releases a trigger that literally brings down the roof on his head.

Fish weirs, commonly used on the west coast of North America, in South America, and the African Sudan, consist of fence-like obstructions across a river or lagoon, and are designed to lead the fish through a funnel into a large basket or crib. Although he can wriggle into the funnel, the poor fish cannot reenter the narrow spout.



Fig. 13 3. Carved Maori war club. (Peabody Museum, Salem.)



Fig. 13-4. Bushman using a hand-rotated fire drill. (*Peabody Museum, Harvard University.*)



To detail all the trap forms devised by clever primitives is an impossibility here. It is probable that all recent primitives have utilized some means of trapping or snaring animals. It is also likely that man in the Early Paleolithic was already catching his dimwitted animal brethren with crude but carefully prepared snares.

BAGS AND BASKETS

All human beings have need of artificial containers. Skin pouches or bags may serve to meet this need, as evidenced by the hand or shoulder

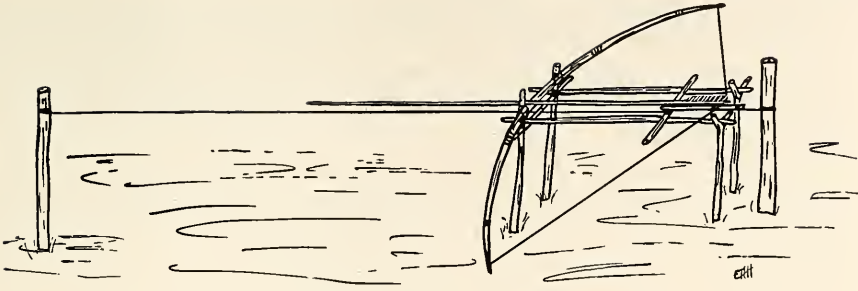


Fig. 13-5. Arawak Indian bow and arrow set-trap.

bag of modern woman and the brief case of the lawyer or professor. Primitive containers may also be made of wood or of plastics, such as clay. But of all these possibilities, baskets, which are containers made of interwoven reeds, grass, or shredded bark (bast), have by far the widest distribution.

Basket making is a truly ancient craft. Direct archaeological evidence yields basketry remains from the Neolithic sites of Europe, and in the Southwest elaborate basketry skill gave the Basket Maker name to the potteryless pre-Pueblo inhabitants of the area.

The simplest basketry container (made by the marginal food collectors, the Fuegians and other southern South Americans, the Australians, and Bushmen) is a loose, open-weave bag such as that used to package onions and oranges in the United States.

Bags of genuine netting are not so much woven as worked out in crochet patterns. *Knotless netting*, as this technique is called, occurs throughout a large part of the Western Hemisphere and in Oceania and Australia.¹

A basket differs from a bag in that it is at least semirigid if not actually stiff. It is built upon its own frame, or its foundation is formed as it is made. The body is produced by the interlocking of long strips or threads of fibrous materials in the form of dried reeds, grasses, split cane, or shredded bark. Basketry materials can be found in all environments inhabited by man.

PLAITING

The technologically simplest basket-making method is that of wickerwork or plaiting. Every reader of this book has done plaiting with paper in kindergarten. It is the alternating over-and-under technique (Fig. 13-6c).

¹ D. S. Davidson, "Knotless Netting in America and Oceania" (*American Anthropologist*, Vol. 37, 1935), pp. 117-134.

However, virtuosity such as that displayed by the Hopi of Third Mesa ² in producing wicker trays of sumac and rabbit brush is not kindergarten work. In method, plaiting and wickerwork are alike, except that plaiting is work in very soft and pliable materials and wickerwork makes use of stiff materials.

Twilling. Twilling is plaiting with variations. Instead of plaiting in and out, over one under one, the basket maker goes over two or more strands and under two or more. Each row is offset from the one next to it, so the effect produced is that of a series of staircases or slanting lines.

Wrapping. Wrapping utilizes a slightly different technique. The foundation of the basket consists of stiff parallel rods. A pliable strand is turned or wrapped once around each rod in a continuous series. It is a basket-making method that is relatively little used.

Twining. This is a step more complicated. In its simplest form two strands of pliable material are simultaneously woven in and out between parallel foundation strands. As each strand is passed between two foundation strands (from over to under and vice versa), it is given a half twist (Fig. 13-6*a* and *b*). The foundation strips are thus firmly bound on both sides in a way that gives much strength to the weaving. Soft grasses or

² The Hopi villages are located on three mesas in northeastern Arizona. From east to west the mesas are named First, Second, Third.

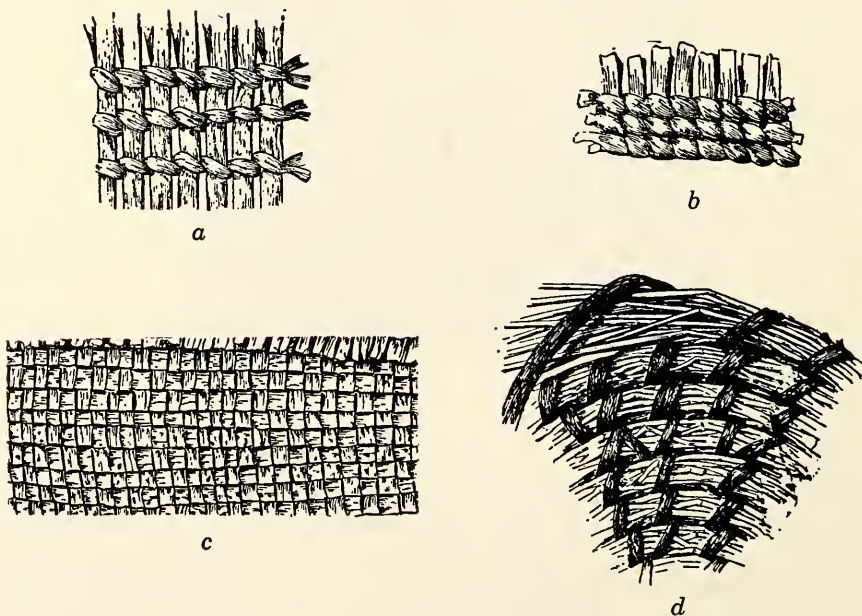


Fig. 13-6. Basketry techniques: *a*, open twining; *b*, close twining; *c*, plaiting; *d*, coiling. (After Wissler.)

strips of rabbit fur twined in this way produce a clothlike material. In fact, twined rabbitskin robes to be worn in the winter were the sole clothes of many peoples of the Great Basin and California.

Coiling. Coiling is the most sophisticated and painstaking of all basketry methods. As a technique it has little in common with plaiting, twilling, and twining, except the use of a foundation of one or more rods or a bundle of grass. Presumably it represents a distinct inventive idea. A spiral coil of the foundation material is built up like rope coiled on the deck of a ship by a careful sailor. It is permanently bound by a strand of pliable material wrapped around the bundle that is to be sewed into position. A hole is then punched through the outer edge of the coil already in place. The binding strand is pushed through this hole and back up around the outside coil to hold it in place. Figure 13-6d shows this method better than words describe it.

Coiled basketry has a sporadic distribution about the surface of the globe that suggests independent invention in several areas. A continuous distribution occurs from Northeast Asia through Alaska, down through the Mackenzie-Yukon area into the Great Basin, California, and the Southwest. In extreme isolation, the Labrador Eskimos and the Tierra del Fuegians also make it. In the Old World the coiling technique occurs in Africa, Indonesia, and Australia.

Twined and coiled baskets are used to hold not only dry stuffs but also water. To carry water in a basket may seem as silly as bailing with a sieve, but if baskets are closely woven and sealed with clay or pitch, they will do. The Shoshone Indians make their drinking-water baskets slightly permeable like Western water bags. Enough liquid seeps through to keep the water cool by evaporation, and a gentle flavoring of pine gum makes a delectable desert drink.

In North America there is a close association between tightly twined and coiled basketry and stone boiling as a method of cookery. Preheated stones are grasped with wooden tongs and held in the basketful of water. The heat of the stones brings the water to a boil. In the Plains area a pouch of skin suspended on four stakes was used in the same way.

Conversely, where pottery is well developed, basketry is not used for cooking purposes. Once the techniques are known, pottery is quicker and easier to make than baskets. More than that, it is more efficient for cooking purposes, since it may be put directly over the fire.

The Pomo Indians of California are acclaimed as the world's finest basket makers. They not only used the three basic basket techniques, but they practiced five kinds of twining (plain, diagonal, three-strand, three-strand braided, and lattice). Coiling was done on a one- or three-rod base. The variety of forms, however, is too great to describe here (Fig. 13-7).³

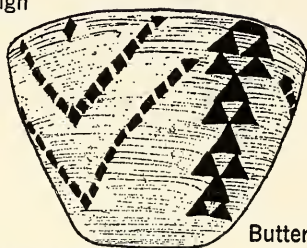
³ See S. A. Barrett, "Pomo Indian Basketry" (*University of California Publications in American Archaeology and Ethnology*, Vol. 7, 1908).



Butterfly design



Raccoon design



Butterfly

Rim-mountains
Body-flying geese

Moth-miller

Fig. 13-7. Basketry designs of the Maidu Indians of California. (After Boas.)

There are also many modifications on the basic patterns practiced by various people in different parts of the world. The reader interested in the details should go to the classic work of Mason on American Indian basketry.⁴

POTTERY

The making of pottery is one of the higher accomplishments of primitive life. Paleolithic man never achieved it, for not until Neolithic times

⁴ O. T. Mason, *Aboriginal American Basketry* (United States National Museum, Report, 1904), pp. 171-548. For a discussion and analysis of ethnological problems in basketry, see G. Weltfish, "Prehistoric North American Basketry Techniques and Modern Distributions" (*American Anthropologist*, Vol. 32, 1930), pp. 454-495.

was the first pottery invented. The earliest migrants to North America left Asia before the technique of pottery making had spread to Siberia. There are no shards associated with early prehistoric finds on this continent. Not until the Modified Basket Maker period (500–700 A.D.) did the people of the Anasazi culture, who were later to become such skilled potters, get their start on ceramic vessels.

In Central America and the Andean region, archaic pottery horizons are earlier by perhaps a thousand years. It is most likely that pottery was independently invented in one or another part of this area, whence it spread out to other parts of the New World. Patagonians and Tierra del Fuegians never received the invention, while basket-making Californians and Shoshones rarely found the urge to copy their neighbors in the Southwest. Northwest Coast Indians were satisfied with their baskets and wooden boxes, and the Indians of the Canadian woodlands utilized bark utensils.

All peoples of Africa make some pottery, but it has received scant attention as an artistic craft on that continent where woodworking, metal-working, and weaving are of more interest to the natives.⁵

The potter's art extends across Asia through Indonesia into the Pacific. Good pottery is made in Melanesia and Guam, and Palau and Yap in western Micronesia, but to many Micronesians and the Polynesians it became a lost art. Polynesians hit upon the substitute device of the stone oven for cooking purposes.

In general, except for the gap just mentioned, the distribution of primitive pottery follows the distribution of gardening and agriculture. Food gatherers and hunters are too far removed from the centers of pottery invention to have received the art by diffusion, or, because of their nomadic life, they have rejected clay pots as too burdensome.

Pottery Techniques. A primitive potter must successfully complete six steps in the making of even the simplest pot:

1. She must know where to find decent clay. Surely the reader as a child has hopefully made at least one crude clay vessel only to have it crack and crumble upon drying. Clay is a disintegrated pelitic rock consisting essentially of hydrous aluminum silicate with various impurities. The relative proportions of silica and aluminum oxide plus the nature and quantity of the impurities determine the quality of the clay for pottery purposes.

2. The clay must be prepared: (a) Most primitive potters first dry the clay and then pulverize it so that coarse extraneous materials may be sifted out. Clay of homogeneous texture is thus procured. (b) The mechanical and chemical composition of the clay is usually adjusted by the

⁵ Omitted from the scope of this statement are the ancient civilizations of the Lower Nile and Asia Minor.

addition of tempering materials, which may be powdered shell, mica, quartz, sand, or even crushed potsherds. Tempering serves to give the clay a workable and binding consistency. It also prevents cracking and checking on drying. Archaeological specimens indicate that the earliest Neolithic potters did not add artificial temper to their clay. (c) The clay must be moistened to a proper working consistency.

3. The clay must next be shaped into a vessel.

4. After this is completed, the pot must be air dried.

5. Decoration, if any, is applied before or after drying, depending upon the nature of the decorative process. Glaze may be added at this point.

6. The final and critical step is the firing of the pot.

Steps 3, 5, and 6 deserve to be discussed in some detail. In shaping a pottery vessel there are three possible techniques, all of which were known to primitive man. The least used, but possibly the oldest, is to mold the clay about a basket or gourd, which becomes burned out in the firing process. This method is wasteful of labor and baskets: truly a long way to a pot. Modeling may be either from a solid lump of clay or from built-up coils that have been rolled out like long snakes. Either process may be performed with or without a paddle and dolly. And either method may be used with or without a potter's wheel.

The potter's wheel need not be a true wheel, i.e., it does not have to be round in circumference; it can be a square platform—or octagonal. But it must embody the basic principle of the wheel, namely, a plane rotating on an axle. This principle no American Indians, not even the sophisticated Mayas, Incas, or Aztecs, were ever able to discover for themselves. Hence, all American Indian potters were wheelless.

In the Old World the potter's wheel appears to have been invented in Egypt some 5,000 years ago. It spread throughout Bronze Age Europe and eastward through India.

In the use of the wheel, the lump of clay is centered directly over the axle, and in the hands of a skillful worker the revolving mass seems miraculously to grow up and out into a vase (Fig. 13-8).

In the coiling of pottery a piece of clay is always first laid down as a base. Pueblo Indians start the bottom coils in a tray or pottery bowl to provide a support and a turning base. Other peoples invariably use a flat rock or piece of board. If the pot is to be a large one, when the side walls are half built it must be set aside to dry for a while in order to become stiff enough to hold its shape. When the whole pot has dried to a leathery consistency, it is pressed smooth with the worker's fingers or with a rounded dolly of stone or clay held against the inside wall, while the outer surface is patted or rubbed into shape.

Attractive corrugated ware (Fig. 13-9) for household use was made by prehistoric Pueblo Indians, who, instead of obliterating the coils, pincheo



Fig. 13-8. Village potter with wheel. Aurangabad, India. (David DeHarport.)

or pressed down the outer rounded edges.⁶ A much more primitive decorative device was to pat the surface of the pot with a cord-wrapped paddle, imparting to it a textilelike surface.

In the European Neolithic, cord imprints were applied in horizontal series to what the Germans have called *Schnurkeramik*. The other great class of European Neolithic pottery was produced by scratching in bands of incised lines or punctate dots, the so-called *Bandkeramik*.

More sophisticated artisans obtain decoration through slip, painting, method of firing, and sculpture. A slip is a surface wash of very fine clay which when baked produces a smooth finish. Use of a clay of different composition from the body produces a different exterior color. Painted designs are put on before firing (Fig. 13-10). The paint changes color in baking.

All primitive pottery is baked or fired, but a kiln is not necessary for this purpose, and few primitive potters have them. Several pots are fired at once to save labor. They are simply piled up in inverted fashion (the bottom ones resting on rocks) and covered with a heap of wood or dry dung, if that is available. The latter makes a very hot fire; even without the use of bellows temperatures of 1200 to 1700°F. are produced.

⁶ See R. Bunzel, "The Pueblo Potter" (*Columbia University Contributions to Anthropology*, Vol. 8, 1929) for a comprehensive analysis of an important pottery complex.



Fig. 13-9. Decorated corrugated coiled pot. Pre-historic Pueblo, Anasazi culture, Utah. (Museum of Anthropology, University of Utah.)



Fig. 13-10. Application of decoration before firing of pot. Shipibo potter, Peru. (*American Museum of Natural History.*)

If the potter wants to turn out creamy ware or shades of buff, brown, orange, or red, she does not inhibit or smother the fire. She knows air produces those colors, according to the chemistry of the clay. All combustible materials in the clay are oxidized. If she wants black pottery, she smothers the fire with wet grass, peat, wood, or powdered dung. The oxygen in the clay is thus driven out by reduction, and carbon deposited by the smoke produces black coloration.

Glazing was known to few primitives. It is attained by applying a slip or painted design of lead oxide, silica, or salts in solution. At high temperatures they fuse and impart a glassy luster.

The final technical step in pottery making (porcelain) was never attained by any primitive people. Invented by the civilized Chinese, who developed it into a high art imitated by Europeans, chinaware is nothing but very thin pottery made of pure pipe clay (kaolin) fired at such high temperatures that it fuses throughout.

In Africa a very few closed families of artisans among the Ashanti and at Bida in Nigeria make glass beads and bangles. The origin of the industry is unknown, but it is not likely to have been a native invention.

WEAVING

Weaving is an outgrowth of netting and basketry. Its product is textile fabric. It differs from basketry in that the strands used are so pliable and

fine that they must be worked on a loom,⁷ which is a device for holding the warp⁸ threads taut. Such strands are, of course, string or thread made of animal or vegetable fibers. They may also be narrow strips of fur, although woven fur robes are not considered to be true cloth.

The manufacture of twine is a universal trait of human culture. By the most primitive method fibers are simply rolled between the palms or between the thigh and the hand (Fig. 13-11). Spindles were independently developed in Egypt, and much later in Central and South America. The primitive spindle is nothing more than a long narrow stick with a stone or pottery collar near one end to keep the thread from running off. A rough string of fiber wound several times about the spindle and held taut with the left hand is tightly twisted and simultaneously wound around the spindle, which is spun with the right hand (Fig. 13-12). Several spinings are needed to produce an even thread.

In spite of the fact that cord or thread making is universal, weaving is not. Although an ancient art in the Mediterranean area, India, Indonesia, and prehistoric Europe, it did not extend deeply into the tropical forests of Africa (although it is practiced in the Sudan), nor was it known to the Bushmen. We have already noted that it was a lost art in most of Polynesia, where its absence was adequately met by bark cloth (as also in the African Congo). In Melanesia and the Micronesian Caroline Islands, a limited amount of weaving was done, but here, too, the preference was for bark cloth. There was no weaving in primitive Australia.

⁷ Knitting and crocheting are special forms of close netting, not weaving.

⁸ The *warp* is the group of parallel-lying foundation threads over and through which the *weft*, or *woof*, is woven at right angles.



Fig. 13-11. Bushman rolling twine. (Peabody Museum, Harvard University.)



Fig. 13-12. Shipibo woman spinning thread. Peru. (*American Museum of Natural History.*)

In the Americas, the Andean region around 1200 A.D. became the center for some of the finest and most complicated hand-woven fabrics the world has ever known. The direction of the textile industry became one of the chief interests of the Inca government, which levied taxes, fines, and tribute in cloth. Great stores of perfect cloth, well-preserved in the high dry climate, have been recovered by modern archaeologists and collectors.

Archaeological stratigraphy gives a clear sequence for the development of looms in this area. The belt loom was the earliest (Mochica culture, 600–700 A.D.). It was followed by a horizontal frame loom supported on stakes, which is to this day preferred by Aymara Indians in their loom work. Finally, it was followed by a vertical four-pole frame loom built against the wall.

From the Inca center true loom weaving is distributed north and south along the Andean cordillera, up through Central America and Mexico into the Southwest. Simple frame weaving is done in the Amazonian basin, as is also belt loom work; frame weaving occurs in the Gran Chaco and the Pampas, but disappears completely in the extreme south. Native American cotton is the chief material used from the Southwest down through South America.⁹

⁹ Cf. L. M. O'Neale, "Weaving," in J. H. Steward (ed.), *The Comparative Ethnology of South American Indians*, Vol. 5, *Handbook of South American Indians*, pp. 97–138.

Weaving was absent in California and the Plains area, but very primitive suspended-warp weaving was done on the Northwest Coast and in the woodlands of the Mississippi Valley and the Southeast.

Suspended-warp weaving is done without a true loom. It calls for finger weaving without the aid of a heddle. Chilcat blankets from the Northwest Coast are the most famous product of this kind of weaving (Fig. 13-13). The warp of shredded cedar bark is suspended free-hanging from a horizontal pole supported on two uprights. The weaving is done from top to bottom as the weaver works the woolen weft in and out with the fingers.

True looms must meet two needs: (1) they must keep the warp taut; and (2) they must have some arrangement whereby a whole group of warps can be lifted at once, so that the weft may be passed through the *shed* (the open space between the lifted warps and the dormant ones) in one movement. When the lifted warps are released, the shed closes as they fall back into place and the weft falls automatically into its over-and-under position.

The device that performs this function is known as the *heddle*. The most primitive heddle is a simple stick, which need be only a little wider than the *web* (the breadth of the warps). One heddle is passed under every other warp. The remaining warps are manipulated by means of one or more additional heddles. By alternately lifting each heddle, the warps

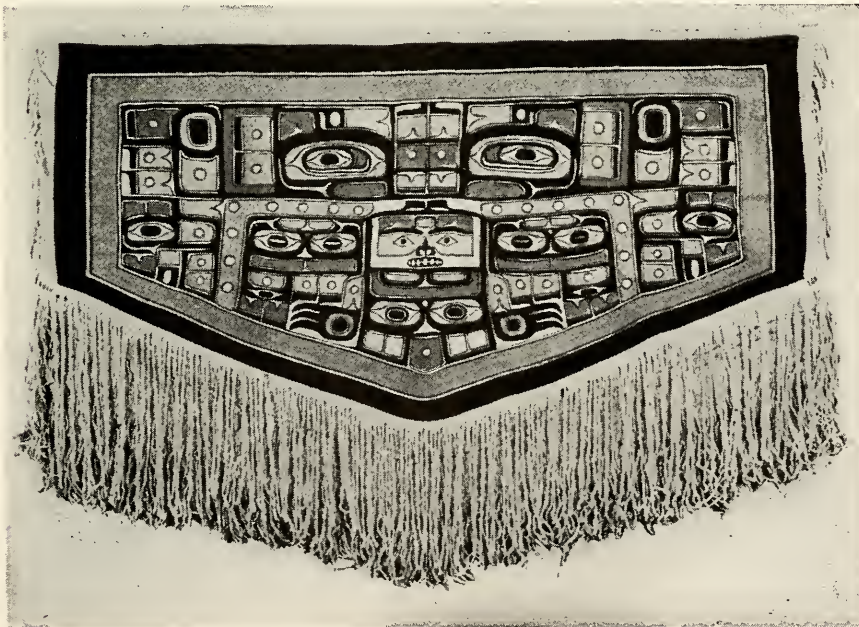


Fig. 13-13. Chilcat blanket. (American Museum of Natural History.)

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can be shifted to speed up the weaving. After the weft is passed through the shed by means of a *bobbin*, it is hammered tightly against the woven material with a flat stick (the *batten*) or a comb. Design patterns are woven in by use of more than two heddles or by laying in differently colored wefts and warps.

The belt or waist loom solves the problem of warp tension by tying one end of the loom to a pole and the other to a belt around the weaver's waist (Fig. 13-14). Larger looms may have a four-pole frame, or the warp poles may be lashed to ceiling or floor.¹⁰

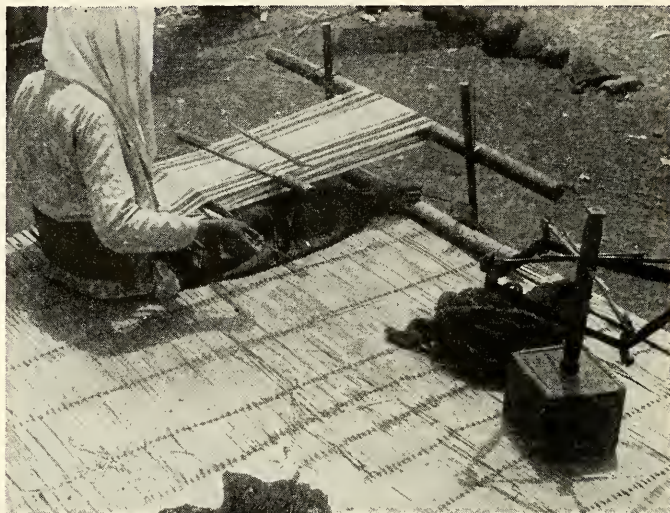


Fig. 13-14. Alorrese belt, or waist loom. (Cora DuBois.)

FELTING

If weaving and spinning are a way to interlock fibrous materials to form a compact cloth covering, so is felting, in which animal wools are matted together by wetting, beating, forming in sheets, compressing, and drying.

Because of the relatively greater complexity of the weaving process, it was at one time assumed that felt was the earlier invention. But the worldwide distribution of weaving as against the limitation of felting to Asia and Europe makes it clear that felting is a special and later invention. For all their skill in weaving, and in spite of the fact that they possessed an excellent supply of wool in the llama and alpaca, the Andean Indians never felted at all. Of course, felting is possible only where woolly animals provide a source of materials.

¹⁰ Cf. C. Amsden, "The Loom and Its Prototypes" (*American Anthropologist*, Vol. 34, 1932), pp. 216-235.

BARK CLOTH

In such tropical areas as Indonesia, Oceania, Central Africa, and Central and South America, bark fibers are used as equivalents of wool. The principle underlying the manufacture of felt and bark cloth is the same: a sheet of material is produced by matting fibers so tightly that they adhere permanently. However, geographical distribution and analysis of the complexes make it quite clear that bark-cloth manufacture was independently invented and not derived from felting or vice versa.

A full comparative study of bark-cloth techniques in all parts of the world is yet to be done.¹¹ But in general the process is the same everywhere. The fibrous inner bark of a suitable tree, such as the paper mulberry (which is cultivated for the purpose in Polynesia), is stripped, scraped, and beaten out with a grooved wooden mallet or paddle on a wood anvil.

¹¹ An excellent prototype of such a study was done by Raymond Kennedy, who demonstrates that the internal congruity of technical steps and linguistic terminology associated with bark-cloth manufacture in Polynesia and Indonesia is such that it must be inferred that Polynesian bark-cloth manufacture originated in Indonesia. See his "Bark Cloth in Indonesia" (*Journal of the Polynesian Society*, No. 172, 1934).

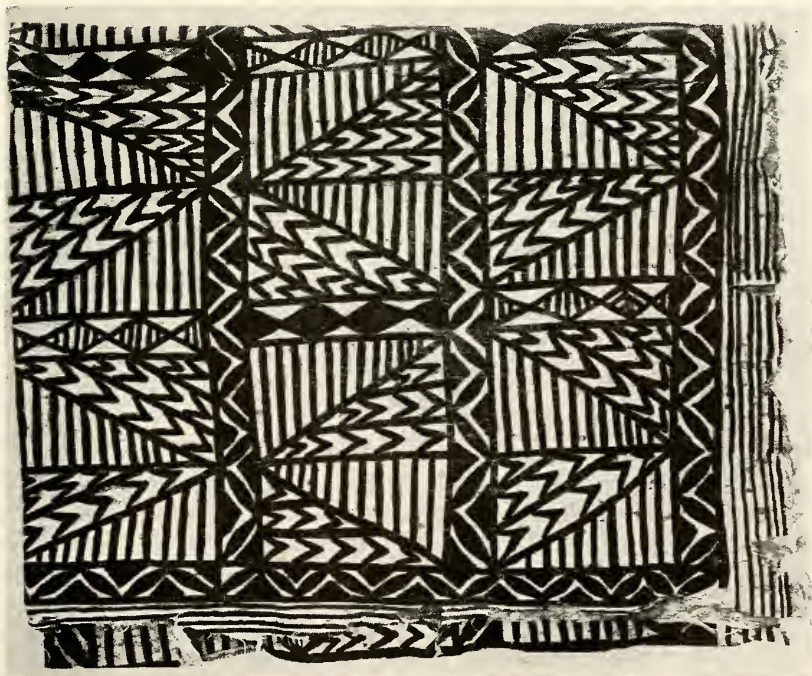


Fig. 13-15. Samoan bark cloth or tapa. (*American Museum of Natural History*.)

It may or may not be soaked in water as a part of the preparatory process. Where it is, there is no limit to the size of the cloth that can be made, since one piece may readily and effectively be "felted" into another.

Indonesians and Polynesians decorate their *tapa* cloth with stamped designs carved into wooden blocks and printed over the surface of the material in brown vegetable dyes (Fig. 13-15). Polynesian block-print designs have come recently into fashion in California play-clothes cottons.

METALLURGY

Metallurgy is scarcely a primitive craft, for it requires the kind of technical knowledge that is more closely allied to civilization than to savagery. Yet preliterate people do acquire metalworking skill. This was probably true of the North Europeans of the prehistoric epochs of Bronze and Iron. It was true of the African Negroes of the nineteenth century and also of the Peruvian Indians and Indonesian peoples. All were close to the threshold of civilization.

The beating out of gold nuggets or chunks of pure copper does not constitute metallurgy. Indians in the copper-rich regions of Lake Superior made tubular arrow- and spearheads of beaten native copper. Copper pieces are found in mounds of the prehistoric Hopewell culture of Illinois and Ohio. Eskimos fashioned a few rare tools out of the iron residue of meteorites found on the frozen surface of the ground. But not a single North American Indian knew how to smelt a metal.

The Mexicans, who knew how to melt gold nuggets with the aid of blowpipes, came close to the secret of the reduction of ores. The Peruvians found the secret in the smelting of copper and tin, which were mined from hills looked upon as sacred shrines. Inca metalworking processes included smelting, alloying (bronze), casting, hammering, repoussé, incrustation, inlay, soldering, riveting, and cloisonné.¹² Skill in goldworking by the highly honored profession of goldsmiths was the bait that brought the gold-greedy conquistadores down upon the hapless Indians.

The Negroes of Africa concentrate upon the more prosaic tools of the blacksmith's forge. From iron smelted in little clay blast furnaces with hand bellows (Fig. 13-16), they shape such utilitarian tools as knives, adzes, axes, and hoes; even tools may be shaped with artistic love when they are to be endowed with symbolic value (Fig. 13-17). Bronze casting in West Africa reached a peak of artistic perfection in the work of the Bina at Benin that has made the Benin masks precious collectors' items. The Benin method of casting is the "lost wax" or *cire-perdue* technique

¹² J. H. Rowe, "Inca Culture at the Time of the Spanish Conquest," in *Handbook of South American Indians*, Vol. 2, p. 246.



Fig. 13-16. Iron smelting with hand bellows. Belgian Congo, Africa. (Belgian Government Information Service.)

in which a model is first made of wax and then covered with clay. The wax is then melted out to make room for the molten metal. When the clay molds are broken, the casting is freed.

SUMMARY

Tools are artifactual extensions or substitutes for human limbs and other features of the body. With tools man adapts his activities to a more efficient exploitation of his environment without reliance on genetic changes to achieve the result. This is the reason why some biologists, as, for example, Julian Huxley, think that biological evolution has finally come to an end with modern man. We adapt through culture rather than through biological changes of our bodily inheritance.

Stone and wooden tools are as old as man. Bone implements date from the Old Stone Age and are found in all parts of the primitive world. Pottery and weaving represent high arts not developed until Neolithic times, but they subsequently spread to virtually all humanity. Felting and the production of bark cloth are interesting specialized primitive methods of producing fabrics used as body covering. An age of handicrafts could be said to have begun in the Eolithic Age and to have lasted until the industrial revolution in Europe. For most of humanity that age is dying only now; yet the demise is to be hastened by the great technical assistance programs for so-called backward countries. For these programs are designed to supplant handicraft technologies with modern industry. For

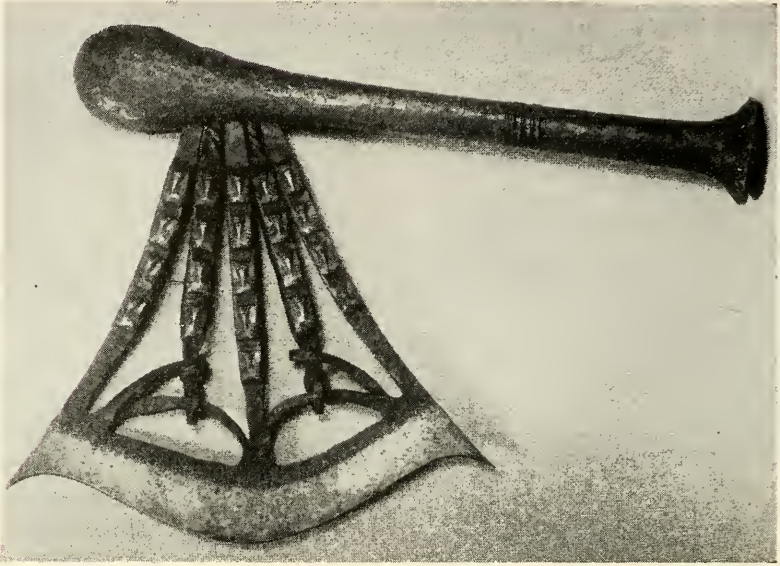


Fig. 13-17. Iron ceremonial ax. Bakuba tribe, Africa. (Peabody Museum, Harvard University.)

handicrafts, although they have served humanity well, and for a million years, do not greatly increase man's energy output. They require a heavy output of time and effort for a relatively small return in food or other consumable goods. Except as handicrafts survive as specialized arts in advanced civilizations, handicraft technology is synonymous with a primitive mode of livelihood, but one that often reveals remarkable ingenuity and technical skill combined with high aesthetic quality.

SELECTED READINGS

- Amsden, C. E.: *Navaho Weaving*. From sheep to blankets in all their varieties.
- Blackwood, B.: *Both Sides of Buka Passage*, Chapter 10, entitled "Useful Crafts." Material culture and its social uses among a Melanesian people.
- Bunzel, R.: *The Pueblo Potter*. A comprehensive analysis of an important handicraft complex.
- Mason, O. T.: *Aboriginal American Basketry*. A complete survey of American Indian basketry.
- Sayce, R. U.: *Primitive Arts and Crafts*. Succinctly summarizes the field.
- Singer, S., E. J. Holmyard, and A. R. Hall (eds.): *A History of Technology, Vol. 1: From Early Times to the Fall of Empires*. Encyclopedic and detailed in its coverage, it is a mine of fact and information.
- Trowell, M., and K. P. Wachsman: *Tribal Crafts of Uganda*. Comprehensive, well-illustrated, and especially good on musical instruments.

CHAPTER 14. Clothing and Ornament

M^{AN} is a rebel against nature. He is prone to accept few things as they come. In all matters it is his irrepressible belief that by his tinkering he can improve upon them. His instrument is culture.

In all times and climes, man undertakes to effect what he vainly believes are improvements upon his bodily appearance. His sartorial accomplishments, both primitive and civilized, are wonderful if not always beautiful to behold. The time and effort that have gone into painting, pricking, scarring, puncturing, and otherwise mutilating and deforming the human body for aesthetic and status reasons are beyond all calculation. We shall leave it to sociologists and economists to conjure up their guesses as to how many billion dollars are spent per year on clothes and cosmetics in this most advanced of civilizations.

THE NAKED SAVAGE

People who wear little or no clothing are no contradiction to what has just been said. Be man ever so unclothed, he is never unadorned. If he wears not so much as a G-string, he certainly sports a nose, ear, or lip plug, or bears his tattoos or scarifications, or paints his face, or curls his hair, or cuts it off, or blackens his teeth, or knocks them out, or perhaps merely files them to a point (Fig. 14-1).

The sense of modesty is merely a habit, not instinct. The discomfiture that is felt when one's sense of modesty is disturbed is a diffused neuro-physiological upset of a large part of the nervous and organic system, shock-stimulated by a behavior situation that contrasts sharply with those to which a person has been intensely habituated. And of course, there is more than the element of mere habit in the total situation. There has also been a strong ideational indoctrination that penalties, social or supernatural, accompany any departure from the habituated pattern. Appre-



Fig. 14-1. Personal ornamentation of a Solomon Island mother and child. (Douglas L. Oliver.)

hension of dire consequences contributes much of the tone of fear and anxiety that colors the feelings of immodesty.

As late as 1936, old-timers among Comanche males felt acutely uncomfortable and indecent if they thoughtlessly went out without a G-string, even though fully clothed in American store pants and shirt.

A favored tale among anthropologists is that of Baron von Norden-skiöld, who in his Amazonian travels undertook to purchase the facial plugs of a Botocudo¹ woman, who stood all unabashed in customary nudity before him. Only irresistible offers of trade goods at long last tempted her to remove and hand over her labrets. When thus stripped of her proper raiment, she fled in shame and confusion into the jungle. After all, the close identification between the Botocudo as a person and the *botocudo* as a plug is such that to become unplugged is most un-Botocudo.

Such circumstances make it perfectly clear that the use of clothing does not rise out of any innate sense of modesty, but that modesty results from customary habits of clothing or ornamentation of the body and its parts.

¹ "The *Botocudo* owe their name to the large cylindrical wooden plugs worn by men and women alike in the ear lobes and lower lips. These cylinders, of light wood (*Chorisia ventricosa*), were 3 to 4 inches (7.6 to 10 cm) in diameter and 1 inch (2.5 cm) thick. The ears were perforated at the age of 7 or 8, the lips a few years later." A. Métraux, "The Botocudo," in *Handbook of the Indians of South America*, Vol. 1, p. 534.

Among primitive peoples the use or nonuse of clothing is more or less functional, although not wholly so. People who dwell in the tropical rain forests tend to get along with a minimum of clothing. This is true in Africa, the Americas, and Oceania. Generally, however, the men wear some sort of a pubic covering, a suspensory or supporter. It is hardly necessary to seek magical reasons for the widespread use of this device, as was done by the early anthropologist Waitz,² and after him by Sumner.³ Notions of mystic shielding of the male sex organ from evil influences are more likely to be secondary developments. Certainly, the conspicuous coverings of gleaming shells, gourds, bark, hide, cloth, or grass do not serve to divert attention but rather to attract it.

An alternative to the rigid sheath is a small apron of leather, grass, or cloth worn in front, or fore and aft, or between the legs and about the waist. Such a garment is frequently worn by women as well as men. It is the basic, and often the only, bit of clothing for most primitive peoples.

When warmth is needed, something more must be added. Most races of mankind are so relatively hairless as to need artificial insulation. Hence, we rob the animals of their hairy covering—skin and all. The trapper flays the beast and prepares the hide, the tailor shapes it, and the lady of fashion slips the skins of animals over her own when she makes her winter excursions. Wool coverings are also produced at the expense of animals, but not necessarily by lethal methods.

Shoshones weave rabbitskin robes, as did the early prehistoric Basket Makers. African Bushmen provide themselves with skin cloaks. The Yahgan of Tierra del Fuego wore a small sealskin, sea-otter, or fox cape as the sole protection against a nasty subantarctic climate—except for a small pubic covering worn by women. The Ona of the same area and the nearby Tehuelche sported longer and larger capes. The Tasmanians wore no proper cloak, but the men were given to draping and tying sundry strips of fur around their shoulders and limbs. For the most part, the Tasmanians smeared themselves with grease and red ochre as proof against cold, as did also the Fuegians. The Central Australians, like the Tasmanians, deviate from the norm of collectors and gatherers who live in the temperate zone in that they have no cloaks. They seem never to have hit upon the idea of wearing skin for clothing. For the men a conspicuous pubic tassel suspended from a belt of human hair plus arm bands of twisted fur suffice. A woman is dressed if she has a string of beads around her neck.

When we turn our attention once again to South America, we find that the fur mantle is worn by Patagonians and Indians of the Gran Chaco in inclement weather. The famous woven wool ponchos of the Andean

² F. T. Waitz, *Anthropologie der Naturvölker*, Vol. 6, pp. 575–576.

³ W. G. Sumner, *Folkways*, pp. 432, 456.

Indians are undoubtedly a cultural elaboration of this more primitive covering.

In North America, the buffalo-hide robe of the Plains Indians was also a form of cape, a large one, later to be replaced by the trader's blanket, which is to this day the symbol of the conservative Indian, the "blanket Indian," who clings to the old ways. Even in rugged Northeastern Woodlands the draped robe was the chief item of winter clothing, besides leggings and moccasins. In the Southeastern states the natives went naked except for a loin cloth. When cold did sweep down from the north, they, too, cast on a loose robe or cape of fur.⁴

THE TAILORED MAN

Tailoring, it may be seen from our remarks, was not one of the more widely esteemed human arts. Most of mankind, including such sophisticates as the Greeks and Romans, have done quite well without it. The feature that is unique about tailoring is that by means of sewing, clothing may be made more or less to fit the human frame. The very idea of tailoring is "fit," and "well-tailored" means more fit rather than less. In temperate and arctic climates it is functionally advantageous to have tailored clothes. The insulating efficiency of clothing is greatly enhanced by the closed, tubular effect of the tailored garment, which gives little room for the play of chilly breezes upon the body. In the tropical rain forest or torrid desert the very advantages of tailored clothing become its disadvantages.

Two factors, therefore, have combined to limit the pre-Columbian distribution of tailored clothing to Europe, northern Asia, and the northern half of North America: (1) selective adjustment to climatic factors; and (2) the fact that tailoring is an advanced technique, which the lowly Fuegians, who certainly could have used warm garments, were incapable of inventing for themselves.

That cultural improvements are not *ipso facto* beneficial is incidentally demonstrated in the debilitating effect of the introduction of European clothing among the Yahgan, of whom Cooper writes:

The clothing of the Yahgan seems to us utterly inadequate, given the climatic conditions—temperatures commonly around and well below freezing point in winter, high winds, frequent snow, hail, sleet, and cold rain—but in view of the seeming role played in their decline by introduced European cloth-

⁴ For a detailed account of the clothing of Southeastern Indians, see J. R. Swanton, "Southeastern Cultures," in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 117-122.

ing and their relative good health prior thereto, perhaps their clothing was reasonably well-adapted to the environment.⁵

In this case, we would observe that it is not so much that their clothing was reasonably well adapted (which it was not) as that they were physiologically reasonably well adapted to a *specific* environmental situation. The adjustment was more biological than cultural. The introduction of tailored European clothing and other elements was a cultural modification that so altered the total environment of the Yahgans as to disturb disastrously the biological balance between them and their physical world. Inexorable extinction apparently stalks them.

This, of course, has been a common consequence of culture contact when very primitive peoples find their environment drastically unsettled by incursive elements emanating from a suddenly presented, unlike, and higher culture.

To return to the problem of the distribution of tailored clothing, it originally was made among the arctic and subarctic peoples of Siberia and North America and the ancient Chinese. The distribution in North America, as Wissler pointed out,⁶ was coterminous with the distribution of caribou; in Asia the association was coterminous with the reindeer. Although the Northwest Coast Indians could easily have adopted the tailoring technique (they did sew boxes together), they did not do so. The northern bison hunters of the Plains did, however, make loosely tailored shirts and dresses of the modified poncho type.

Real tailoring is done by the Eskimos and Indians of the Canadian woods. Coats are fitted with genuine sleeves and necks. Eskimo garments with the fur turned in and the outer skin dyed and decorated are not only functional but aesthetic.

The diffusion of tailoring in prehistoric times raises several unsolved problems. Did it spread from the ancient civilization of China to the Siberian barbarians, thence east and west? Or did the primitive skin workers of northern Asia develop it, whence it came to the Chinese?

The westward diffusion into Europe proper did not occur until a number of centuries after the conquests of Caesar. And finally, since the bursting of the confines of Europe in modern times, when tailored clothing became the symbol of the European conqueror, human creatures in all parts of the world have now enclosed their bodies in suits and dresses. The lovely tapa sarong of the Polynesian has given way to the missionary's Mother Hubbard. But lo, our parents having "civilized" the Polynesian out of the sarong, we moderns have taken its charms for our own.

⁵ J. M. Cooper, "The Yahgan," in *Handbook of South American Indians*, Vol. 1, p. 87.

⁶ C. Wissler, *The American Indian*, p. 62.

SHOES AND HATS

A properly dressed American woman never goes to church or afternoon tea without shoes and hat. The upper and nether extremities must be covered. Shoes and hats, like tailored clothing, may be functional—or mere status symbols.

Among primitives footgear is more common than headgear. The status functions of headgear can be served readily enough by hairdos. The protective functions of hats are also notably less important than the protective function of shoes.

Here again, the physical environment is an important factor in influencing the adoption or nonadoption of an element of material culture.

The problem of fabricating a foot covering that will stand up under the wet rot of the tropical jungle is practically insoluble. Even our best efforts with all the resources of science were not very satisfactory in the South Pacific campaigns of the Second World War. Jungle primitives prefer to go barefoot. An unshod foot dries more quickly and comfortably than one encased in a soaking and muddy moccasin. For this reason the highly sophisticated Indians of the Northwest Coast rain forest went barefoot, even in southern Alaska.

The simplest footgear is a piece of hide folded about the foot. When tailored, it becomes a moccasin of the type made famous by North American Indians. Further development of this form produces the boot. The so-called "Arctic boot" is an adjunct of true tailoring. This is not at all surprising, since anyone skilled enough in cutting and sewing to make a boot is *ipso facto* skilled enough to tailor clothing, and vice versa. Further, the same climatic circumstances that lend to tailored clothes their functional value act likewise with respect to boots. People who have to plod around in snow and cold find high tops more comfortable. Who enjoys walking through snowdrifts in oxfords? However, we have learned in anthropology not to expect that necessity necessarily mothers invention. The Indians of the North American boreal forests (the Canadian woodlands), who make tailored clothing and are confronted with heavy snows, make moccasins instead of boots, in spite of the fact that the more northerly of these Indians have contact with boot-wearing Eskimos. The boot of the Eskimos, worn from Greenland to Alaska, was undoubtedly borrowed from the Siberian herders and hunters. It is quite definitely an Asiatic trait.

The high, thigh-length, Cavalier-style riding boots of the Tehuelche Indians of the Patagonian pampas (whence comes its name, "the Patagonian boot") is apparently a post-Columbian adoption. The early, horseless "foot Tehuelche" wore a kind of moccasin stuffed with straw.⁷ Be-

⁷ J. M. Cooper, "The Patagonian and Pampean Hunters," in *Handbook of South American Indians*, Vol. 1, p. 144.

cause of its association with the horse, a post-Columbian acquisition, the Patagonian boot is hardly to be considered an independent primitive invention. But it is interesting to note that similar boots were not adopted in the Amazon, where the natives still prefer to go barefoot, or in the Andean region, where the prehistoric sandal holds sway.

The sandal is the other type of primitive footwear that finds great favor. In its simplest form it is a piece of leather roughly fitted to the sole and held firm by thongs passing over the foot.

Sandals with woven fiber soles were very popular with prehistoric Southwestern and Great Basin Indians. Wissler noted that "in eastern North America moccasins were discarded when walking in the rain, in wet grass, or upon moist ground."⁸ This was also true of the Incas with their rawhide-soled sandals, which would go soft and feel squishy when wet, then become hard and out of shape when dried. Wissler thought he detected a link between the wearing of sandals and the wearing of woven clothing in both the Old World and the New. The fact is, however, that in prehistoric North America the production of woven sandals antedates the weaving of cloth by thousands of years. Such sandals are an aspect of basket making, not of textiles.⁹

THE HAIRDO

Concern with the coiffure is one of the most intense interests of mankind. We know not when the earliest prehistoric men and women first began to play with the cranial hair. Archaeological evidence from the Upper Paleolithic in Europe decisively demonstrates that Cro-Magnon man and his contemporaries laid great emphasis upon the female hairdo. In the Aurignacian statuette of the Venus of Willendorf (Fig. 6-10), no facial features were carved by the artist. To him there was no interest in a pretty face. But the pattern of the hair style is meticulously incised.

This trait of the Venus of Willendorf in the Aurignacian epoch, more than 20,000 years ago, was not a mere accident but a strong feature of the culture, for a similar degree of care was lavished upon the hair pattern of the female head from the Grotte du Pape at Brassempouy (Fig. 6-12).

All recent primitives, from those of the lowest cultures to the highest, treat the hair. Add to this the fact that all civilized people do likewise, and we see that here is another universal trait in human culture.

The trimming and arrangement of the hair is not merely a matter of decoration and ornamentation; in culture after culture, it serves to symbolize social position. The most basic status represented in the treatment

⁸ Wissler, *op. cit.*, p. 65.

⁹ *Ibid.*, p. 64.



Fig. 14-2. Coiffure of a Makere woman, Belgian Congo, Africa. (*Belgian Government Information Service.*)

of the hair is that of sex. Males and females within any given society almost without exception have different ways of fixing the hair. With us the symbolism is so strong that short-haired women are considered man-nish and long-haired men effeminate.

Less universally, hair styles are used to indicate age status. Omaha Indian boys had their heads shaved close, with isolated tufts of hair left here and there. Men wore either their full head of hair lying loose, or they shaved it off, except for a continuous roach along the sagittal line. Likewise, it used to be that young girls in our society wore their hair down, until after adolescence they were privileged to put it up.

Among the Omahas the shaved head of the boys indicated more than just age status, for the patterns of the remaining tufts were different for the boys of each clan. "The cutting of the hair was done, it was said, in order to impress on the mind of a child, as in an object lesson, the gentes [patrilineal clan] to which a playmate belonged."¹⁰ This selfsame practice is widespread among Sudanese West Africans. There the pates of children are divided into patterns of diamonds and squares formed by parting the hair and gathering it into tightly tied tufts. In Africa, the various patterns indicate different social affiliations. In America, some of the styles can frequently be seen on small children among American Negroes,

¹⁰ A. C. Fletcher and F. LaFlesche, *The Omaha Tribe* (Bureau of American Ethnology, Annual Report 27, 1911), p. 198.

who have long since lost all vestiges of African clan organization; the practice apparently ¹¹ expresses no more than a style convention that is but a survival of the old practice. A definitely New World symbolism has arisen among American Negroes in the matter of hair form. The passion for hair-straightening and kink-removing compounds among American Negroes reflects an identification of nonkinky hair with the social status of Caucasoids.

The varieties of hair decoration are so multifarious the world over that it is not possible to attempt a distributional summary here. Mention should be made of the localized Melanesian custom, particularly in New Ireland, of bleaching out black hair to a reddish orange with lime. This phenomenon confounded any number of American G.I.'s when they were first confronted with it in the South Pacific.

A closing comment on this subject would reemphasize the vital significance of the relation between hair treatment and formal social position. What is the meaning of the colloquialism, "They really let their hair down and had a good time"? Do we actually let down our hair? Only figuratively. What is let down are the customary restraints that keep us within our more cautiously preserved social roles. Let-down hair is ordinarily hidden from the public view, as is also the "uncensored" personality.

COSMETICS AND JEWELRY

Americans spend an estimated 700 million dollars on cosmetics in a normal year.¹² It is not the primitive but the universal man in us that accounts for this seeming extravagance. Viewed from the apex of a lofty asceticism, cosmetic aesthetics seem basely barbaric. Lotions, pastes, powders, pigments, and synthetic essences to alter the texture, color, feel, and smell of the external surfaces of the human body are neither primitive nor civilized. They are the universal cultural responses to the basic human need for favorable response. They are designed to heighten the stimulus intensity of the physical presence of one person upon the touch, smell, sight, and perhaps taste of others. The others are usually of the opposite sex, but not exclusively so. If personality is the social stimulus value of an individual, then cosmetics intensify personality.

Rouge is the most common cosmetic for two reasons: (1) red ochre (iron oxide) occurs in many places and is readily procurable; and (2) red is the primary color with the longest wavelength perceptible to the

¹¹ There has been no investigation into the possible functional significances of hair arrangements in American Negro children.

¹² J. Gunther, *Inside U.S.A.*, p. xii.

human eye, the color with the greatest natural stimulus value. When mixed with grease, it may be harmlessly applied to the human body. Yellow, black, blue, and white are the other favored colors.

Body painting among primitive peoples is for the most part limited to special occasions. Such occasions are, of course, usually ritual and ceremonial. They are events out of the ordinary, and painting changes the individual from an ordinary person to a man of distinction. War paint is usually linked to magical potency and serves less to frighten the enemy than to bolster the faint heart of its wearer. Thus, much of primitive cosmetic practice takes on symbolic values.

The trouble with paint and cosmetics, as every woman knows, is that its application is not lasting. The solution hit upon by many peoples is tattooing.

In North America, light tattooing runs from the Eskimos down the West Coast and into South America. The two high centers of the art, however, were Polynesia and Japan. Curiously, the status associations of tattooing in Polynesia and the civilized world are just reversed. With us soldiers and sailors in the lower ranks, longshoremen, and unskilled laborers are the persons who usually get themselves tattooed. For persons of higher status, it is definitely *déclassé*. But within the lower classes it serves as a symbol of masculinity and toughness. In Polynesia, the higher the social status, the fuller the tattooing. It extended over face, body, and limbs; in some overenthusiastic cases even to the tongue. The process was long drawn out and painful, but socially rewarding (Fig. 14-3).

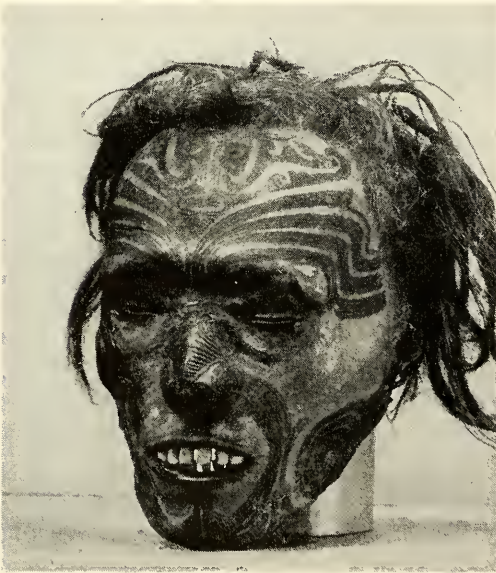


Fig. 14-3. Decorative tattooing on a mummified Maori head. New Zealand. (American Museum of Natural History.)

The technique of tattooing is to puncture the skin with needles carrying an indelible dye—usually carbon black. This posed a problem for Negroes and the Australian blackfellows. No white dye for tattooing was ever discovered by them. The solution hit upon in Africa and Australia is to incise the skin instead of puncturing it. Then by rubbing ashes, grit, or other irritants into the wounds scar tissue can be encouraged to form, so that a series of raised lumps remain in a permanent visible pattern.

In Central Australia cicatrization or *scarification*, as the process is called, is a part of the adolescent initiatory rites for boys. The patterns are simply parallel rows of lines on the chest and back, but they are absolutely necessary to manhood. So important are they as symbols of manhood that individuals voluntarily repeat the operations in later life to keep their scars large and fresh.

In Africa, scarification among the Congo Bantus is usually part of the initiatory rite. The designs are in some instances elaborate geometric patterns.

German corps (fraternity) students and university men give great kudos to dueling scars. Reputedly they have great sex appeal. A wound that does not fester and leave a glaring scar is a dead loss. So important are the duel-born scarifications that German impostors have been known to slash themselves with a razor and rub in salt to leave the impression that they, too, bear the scars of honor.

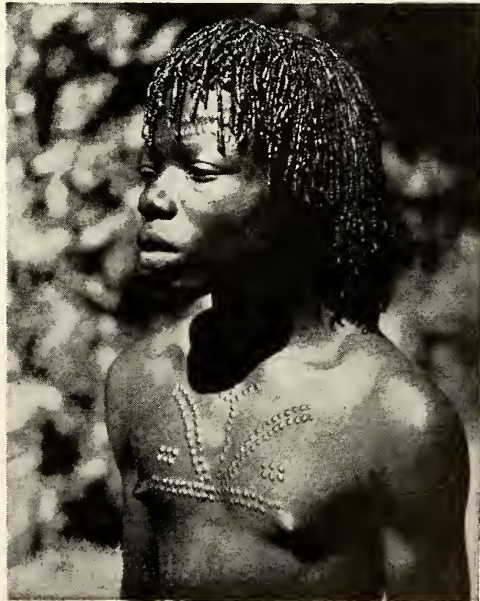


Fig. 14.4. Cicatricized Bankutshu girl. Belgian Congo. (Belgian Government Information Service.)

DECORATIVE DEFORMATIONS AND MUTILATIONS

Tattooing and scarification are only superficial ornamental embellishments impressed upon the body. Piercing of the nasal septum (Fig. 14-5), the lips, or ears, so that sundry bones, feathers, shell, wood, or metal ornaments may be shoved through them, extends from the most primitive to highly civilized peoples. The invention of the screw and spring clip has only recently obviated the need for ear puncturing among our own ladies, who find the functionally atrophied external ear a convenient appendage from which to dangle pretty baubles.

Incas, in South America, and Bagandas, among others in Africa, gradually extend the ear lobes to receive thin disks as much as 6 to 8 inches in diameter. Inca nobility wore disks of gold. Baganda women, with their huge lip labrets, are familiar to all circus sideshow visitors.

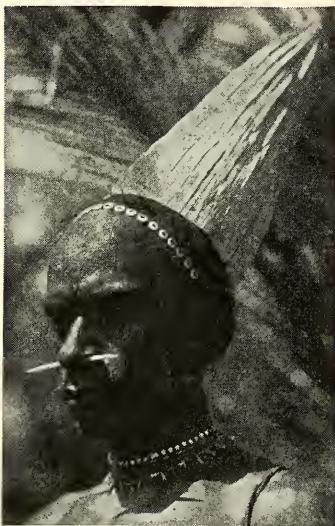


Fig. 14-5. Solomon Islander with pierced nasal septum. (Douglas L. Oliver.)

Separation of the cervical vertebrae and extension of the neck in ringed brass collars by Burmese women is another familiar distortion.

Cranial deformation was much esteemed as a mark of beauty by various Northwest American Indian tribes (viz., the Flatheads of Idaho) and also by the Incas and other Andean peoples, who bound a flat board against the frontal region of the head of a baby in the cradleboard in order to produce a recessed forehead and a high, peaked occipital. Binding with cloth to produce long heads was also practiced.

Circumcision and subincision are not so much mutilations for ornamentation as they are mystical and status operations.

The one is the removal of the foreskin of the penis; the other a slitting of the skin and urethra along the length of the male sex organ. Among the Central Australians they symbolize masculinity in a male-dominated and ideologically masculine society; like scarification, the operations (often fatal) are performed without anesthesia and with flint knives on adolescent boys as a part of initiation into manhood. Most African tribes also circumcise at adolescence, and for similar reasons. Circumcision is an absolutely required status mark of the Islamic male and orthodox Jew.

Filing (Fig. 14-6) or knocking out of incisor teeth occurs in scattered distribution from Australia up through Melanesia and Indonesia, and over



Fig. 14-6. Alor girl with filed frontal teeth. (Cora DuBois.)

into Africa. Prehistoric Europeans and American Indians spared themselves this mark of distinction. Of all the decorative blemishes imposed by man upon himself this is perhaps the most foolish. Scarification, tattooing, and circumcision may be painful, but except as they cause death through infection, they do not inhibit the healthy functioning of the body. The deliberate destruction of the teeth does just that.

Yet, as has been shown throughout this discussion, what is lost physically is gained socially. Mind triumphs over matter. No matter if the psychic satisfactions are not rational. The need that is met is elemental. The fashion and jewelry industries, the cosmetic manufacturers and purveyors, the beauticians, all may rest secure that their services have a future—as long as all mankind's.

SUMMARY

The sense of bodily modesty is a habit and not an instinct. Human beings cover, decorate, or mutilate their bodies for a variety of reasons, chief among which are status identification (symbolic advertising of social position), protection against inclemency of climate, real or imagined self-beautification or enhancement, and magico-religious requirements.

SELECTED READINGS

- Elwin, V.: *The Tribal Art of Middle India*. For illustrations and descriptions of bodily adornment.
- Hambly, W. D.: *The History of Tattooing and Its Significance*. A broad survey.
- Wissler, C.: *The American Indian*, Chapter 3, entitled "The Textile Arts." A brief summary.

CHAPTER 15. Art

THE URGE to beautify is one of the most interesting and unique, certainly one of the most remarkable, characteristics of the human being. It is, as seen by Justice Oliver Wendell Holmes, "one of the glories of man that he does not sow seed and weave cloth, and produce all the other economic means simply to sustain and multiply other sowers and weavers. . . . After the production of food and cloth has gone on a certain time, he stops producing and goes to the play, or he paints a picture or asks unanswerable questions about the universe, and thus delightfully consumes a part of the world's food and clothing."¹ Unlike so many of the basic drives that may be more or less directly linked to the imperatives of biological survival, the aesthetic and artistic drives are much more obscure in their origins and functions. Man could survive without art, yet man and art are inseparable. To be artless is to be dehumanized. Not without reason are the arts and belles lettres known as the *humanities*.

By art is meant the overt expression of impulses in line, form, color, rhythm, and tone, as in drawing, painting, sculpture, dance, music, and literature. The impulses are both emotive and rational, but feeling tone predominates over thought.

The basic function of art as art is to release tensions by enabling the artist to externalize some of his emotions and ideas in an objective way. The release of the tensions brings satisfaction and pleasure. The viewers of the art object, if it has meaning to them, are stimulated to sensuous perceptions that likewise produce emotional responses ultimately resolving into pleasurable feelings of euphoria and balance. This is not to deny, however, that the artistic experience may be highly disturbing and may even cause the artist great discomfiture while running its course. The expression of art begins in a state of tension and the process of translation of feelings into high artistic form is not easy.

¹ O. W. Holmes, Jr., "Law in Science and Science in Law" (*Collected Legal Papers*), p. 212.

Thus even from the individualistic point of view, art never exists literally for art's sake alone. It exists for psychophysiologic reasons. And because our scientific knowledge of the physiology of emotion is as yet so crude, we understand little of the workings of the artistic impulses. Aesthetics, the study of beauty, remains almost entirely a branch of philosophy, for beauty is still subjective, as far as our understanding of it goes.

But art may not be seen in its entirety if analyzed only from the individualistic point of view. Art is also a social expression, and inevitably it becomes a part of culture. Further, since man is always a creature of society and the child of culture, art *ipso facto* serves social as well as individual interests and needs. Art is inextricably tied to religion and magic. Yes, and to politics. It cannot help expressing and reflecting social relations and systems. It can serve to sustain them, as Renaissance art served medieval Christianity; or it can strive to destroy them, as does the anarchistic art of the Dadaists who hold modern civilization to be so false and meaningless that the honest artist can only lampoon it with ridiculing combinations of line and color.

WHAT IS PRIMITIVE ART?

The only safe answer to this question is that primitive art is the art of primitive peoples. It is impossible to define primitive art merely as crude art, for some primitive forms of artistic expression are exceedingly complex. It is impossible to label it as "childish," for some primitive art



Fig. 15-1. Creative art of a Bushman child. (Peabody Museum, Harvard University.)

is precocious in technique and sophisticated in ideology. It is impossible to identify it as naturalistic, for some primitive art is highly stylized and conventionalized. The art of primitive peoples runs a wide gamut from technical clumsiness to high skill, from childlike simplicity to confusing complexity, from naturalism and realism to conventionalized abstraction.

Even when we eliminate the more florid forms of primitive art from our consideration and concentrate on the arts of the most primitive of known peoples, this is still true. Bushman art is naturalistic and full of vitality (Fig. 15-2). Australian art is highly stylized and in certain forms is abstract and symbolic. Eskimo art is naturalistic and technically quite sophisticated (Fig. 15-3). Shoshone art is almost nonexistent.

No qualities that universally characterize primitive art can be adduced from the art of primitive peoples, unless it be that no primitives ever solved the problem of perspective—with which most of them never dealt.

The so-called “primitivists” in recent Occidental art are not true primitives. In stripping down their art forms to what they see as essential sim-



Fig. 15-2. Bushman rock painting. The dancers.

plicity, they are not necessarily emulating primitive art, even though they have been consciously influenced by the art of certain primitive peoples, especially African sculpture.

The “primitives” of early American painting cannot be considered truly primitive either. They were only the untutored early representatives of an American offshoot of the European cultural tradition. They are called *primitives* only because they were early nineteenth century with reference to a very limited art history, and because they were crude in their technique.

Since, as most art students now agree, an art can be aesthetically the art of a culturally primitive people without itself being primitive, primitive art must be defined by extraartistic means, viz., its association with a preliterate culture.

Decorative Art. Decorative art is the work of the artisan, not the artist. It is the embellishment of an artifact. Plains Indian moccasins were embroidered with dyed porcupine quills. Later, when traders made colored beads available, beadwork replaced quillwork. Basket makers find that variations in twilling produce interesting and pleasing designs within the structure of the basket. They discover that the use of varicolored fibers makes possible tasteful coil and twill work (Fig. 13-7). Potters discover that slips, painting, and sculptural detail make infinite variety a potentiality in ceramic production. Clay vessels can be mere household articles, or, by attention to decorative line and form, they can be transformed into objects of pure beauty (Fig. 13-10). Rawhide boxes could have been left as crude and undecorated as our corrugated shipping cartons. But Plains Indians preferred to decorate them with geometric designs in color.²

A lime spatula could be a simple stick, but the natives of eastern New Guinea prefer to carve out a handle with painstaking skill. Northern Shoshones were content with roughed-out spoons of mountain-sheep horn, but Northwest Coast Indians worked intricate totemic designs into their handles (Fig. 15-4).

These are all examples of decorative embellishment—superfluous modification in line, form, or color of useful articles—superfluous in the sense that they do not contribute to the utilitarian effectiveness of the article. But they please their owner, impress his guests, and whet the acquisitive appetites of museum collectors.

A valid principle seems to be that as soon as a people solves the fundamental technical problems in the production of an artifact or tool, the artistic impulse begins to assert itself. The more aesthetically endowed individuals begin to play with the surface in an effort to increase the pleasing potentials of the object.

The history of automobile design compresses the whole process within the span of a generation. Motors were first attached to carriages with only as much modification of the erstwhile horse-drawn vehicle as the mechanical needs of the device dictated. The problem was to make a four-wheeled vehicle that was automotive; inventive concern was almost



Fig. 15-3. Aleutian carving in ivory. (Peabody Museum, Harvard University.)

² Cf. L. Spier, "Plains Indian Parfleche Designs" (*University of Washington Publications in Anthropology*, Vol. 4, No. 3, 1931), pp. 293-322.

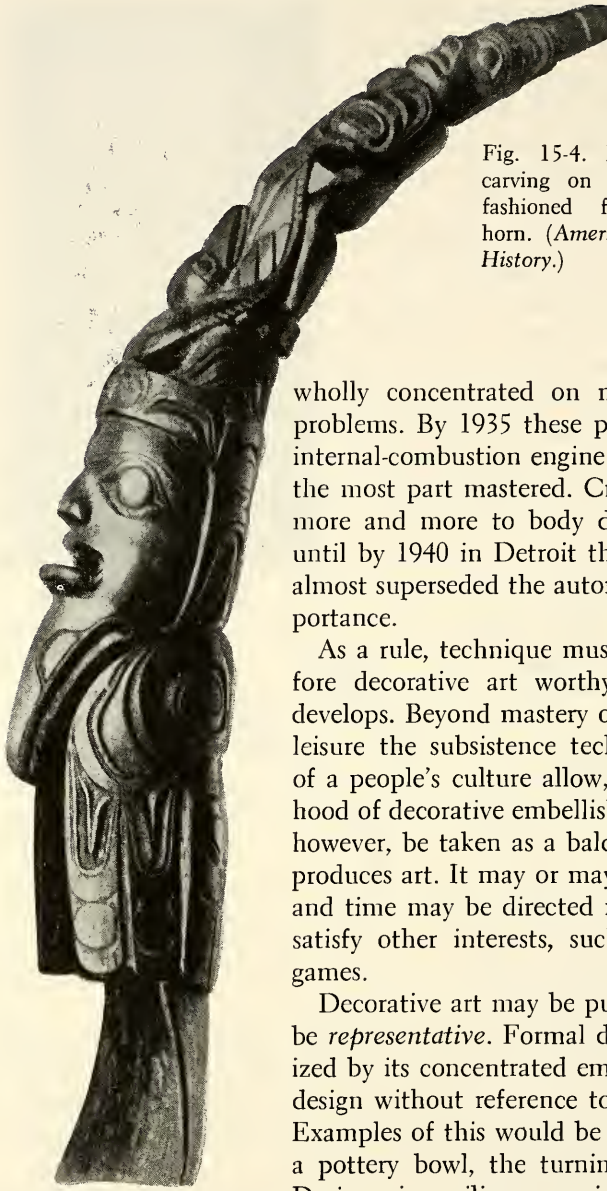


Fig. 15-4. Northwest Coast Indian carving on the handle of a spoon fashioned from a mountain-sheep horn. (*American Museum of Natural History.*)

wholly concentrated on mobile power and its problems. By 1935 these problems, so far as the internal-combustion engine is concerned, were for the most part mastered. Creative interest shifted more and more to body design and appearance until by 1940 in Detroit the industrial artist had almost superseded the automotive engineer in importance.

As a rule, technique must first be mastered before decorative art worthy of being called art develops. Beyond mastery of technique, the more leisure the subsistence techniques and resources of a people's culture allow, the greater the likelihood of decorative embellishment. This must not, however, be taken as a bald assertion that leisure produces art. It may or may not. Surplus energies and time may be directed into other channels to satisfy other interests, such as war, trading, or games.

Decorative art may be purely *formal*, or it may be *representative*. Formal decoration is characterized by its concentrated emphasis upon form and design without reference to meaning or thought. Examples of this would be the perfect shaping of a pottery bowl, the turning of a beautiful rim.

Designs in coiling, weaving, and twilling that come out of the arrangement of warp and weft, the introduction of decorative bands about the rims of baskets through the process of binding the edges to avoid raveling, are further examples of formal decoration that results primarily from industrial technique. However, formal decoration not imposed by technical needs is world-wide. Decorative bands incised or painted about the neck of a pot or the edges of a box are purely *super-*

imposed on the functional structure of the artifact. Such formal design elements are not extensions of technique, but rather expressions of the universal *feeling for form* that prompts man to emphasize the form of his object.

Thus, the ubiquitous formal decorative art that has been so assiduously studied by anthropologists and so generally spurned by art historians ("because it is not *pure art*") springs from two fundamental sources. As Boas has put it, such art "is not necessarily expressive of purposive action," i.e., the artisan is not consciously producing an artistic product, but rather it is based upon "reactions to forms that develop through mastery of technique" and secondly, "the formal interest is directly due to the impression derived from the form. It is not expressive in the sense that it conveys a definite meaning or expresses an aesthetic emotion."³

Decorative art may also be representative, i.e., the design or figure may portray some object. It presumes to represent the real thing. If the representation is faithful to the original model, it is said to be *natural*, or naturalistic, as was European cave art, or as are the delightful dancing figures with their long limbs, narrow torsos, and fluid movements conceived by the Bushman. The meaning of *style* in representative art can be quickly grasped by comparing Egyptian naturalistic representation of dancers with the Bushman's. Figure 15-5 shows us an extraordinary Zapotec piece of naturalism in sculpture from Oaxaca, Mexico.

The same people were also capable of marked stylization, as seen in

³ F. Boas, *Primitive Art*, pp. 62-63.



Fig. 15-5. Stylized realism. Carved stone head from Oaxaca, Mexico. (American Museum of Natural History.)



Fig. 15-6. Decorative elaboration. Terra-cotta funeral urn from Oaxaca, Mexico. (*American Museum of Natural History.*)

the clay representation of a tiger god in Figure 15-6. The term *style* means a departure from absolute naturalism. Artists always compose their creations to some degree. Documentary photography or the snapshots of most amateurs are not art. But by selective lighting, screening, and retouching, photography can be made to approach art. A textbook line illustration of an anatomical specimen is a scientific representation, but hardly ever art. Style denotes a standardized selective modification of the real image in a way that produces an aesthetically effective and distinctive representation.

Style in Northwest Coast Art. One of the most distinctive of all primitive art styles is that of the Northwest Coast of North America in the carving and painting of masks, totem poles, boxes, rattles, dishes, spoons, canoes, houses, and other objects. Exaggerations in representative art have led not to geometric design but to a unique stylization in which a body form can still be distinguished, in spite of the fact that it is weirdly dis-

torted in size and arrangement. Since all Northwest Coast art objects are utilitarian in intent, the form of the object on which the decorative element is placed determines the shape of the piece. The representation of the image is, therefore, more or less subordinated to the object. The art is definitely not free art.

The effects of this subordination of the art to the object are most interesting. The artist is given, so to speak, a decorative field that he must cover. He abhors blank spaces. He also wants all his decorative elements to represent some aspect of animal life. Hence, he is impelled to dissect, dismember, distort, and remold his creatures to fill the space, be it the surface of a box, bowl, wooden hat, or rattle. Distortion becomes such that the representation is in the end a caricature. But sheer design does not annihilate representation wholly, because the impulses of the Northwest Coast artist are not unalloyedly aesthetic. Totemic heraldry, with its rich mythology of clan and lineage origins from heroic animal ancestors, pervades most Northwest Coast art. The representative art portrays not just an animal but an animal that symbolizes some mythical or historic event in the social background of the artist. This interest in the art counterbalances the tendency for caricature to get out of hand. The device by means of which this purpose is made effective is the standardization of certain immutable symbols based on one or a few outstanding anatomical traits of the natural creature portrayed. Thus, no matter how weird the distortion in the interests of design or in the flight of imaginative fancy, the message to be conveyed by the representation cannot be lost in meaningless form and line.

The marks of the beaver in Northwest Coast art are the most readily recognizable—his flat, scaly, mud-slapper tail and his efficient cutting teeth. These are always present in any artistic representation of the beaver. In Figure 15-7 we see a Haida Indian totem-pole beaver. He may be quickly recognized by his two great incisors and his crosshatched tail, which, since the pole is to be viewed from the front, is curled up between his legs, for otherwise it could not be seen. Since the beaver is a wood-worker, he is often, but not always, shown with a chunk of a log in his paws. One other important landmark is the projecting ear. Although it will be observed that stylization of the face is in the direction of the human visage (all the mythological creatures talk, think, and act like human beings) the ears above the head are sure distinctive evidence that a nonhuman animal is represented.

The bear in Figure 15-7 fills in a square design area. Again the ears prove him to be an animal. The teeth are bear teeth, but the most important mark is found in the long claws of the paws. Notice, too, that the bear looks as though he had been split down the back and then opened to fill out the flat space.



Fig. 15-7. Northwest Coast Indian art. Haida: *a*, carved totem-pole beaver; *b*, painted bear on a flat surface; *c*, painted shark or dogfish. (After Boas.)

This tricky device is shown at its best in the treatment of the shark, shown in Figure 15-7. The distinguishing shark features, which are all on the face, are (1) a large mouth, drawn down at the corners, (2) many sharp teeth, (3) gill slits on the cheeks, (4) large round eyes, (5) a high tapering forehead on which are drawn two circles like eyes and gill slits to form a pseudo subface. Since these features are all best seen from the front, the shark head is never shown in profile. Yet the side of the body must be shown in profile. In order that symmetry may be attained, the artist has split the fish down the back and folded the two sides out to the right and left of the head. What looks to us at first glance like wings are but the outspread right and left sides of the shark's body. Not to leave a large void beneath the body, the pectoral fins are much enlarged; and then to keep the whole within the confines of the rectangular decorative area, the split tail is turned down and inward at both ends of the body.

Thus we see how the Northwest Coast artist with great skill and ingenuity compromised and balanced his hunter's interest in animal anatomy, his artistic interest in design, his abhorrence of blank spaces, and his totemic mythology into a sophisticated art style. In the struggle between representation and symbolism neither won. Northwest Coast art is both representative *and* symbolic.

Variation in Styles. An interesting aspect of primitive art is the occurrence of different art styles within the same culture, each style associated with a specific aspect of the culture and not transferable to other phases. On the Klamath River, among the Yurok Indians, naturalistic representations are permissible on woodwork but absolutely tabu on basketry, where only geometric patterns are allowed. Why? Naturalism in basketry designs is sure to bring bad luck, especially eye trouble, as happened to a woman once, according to the old wives' tales.⁴

Sculptured representations of Cook Islands deities reveal a nice contrast of styles between two closely related objects. Private gods, belonging to individual persons, are represented by grotesque but utterly realistic figurines carved in a highly stylized manner and yet essentially naturalistic. Lineage and tribal deities, on the other hand, "were usually represented by highly abstract wood carvings most of which bear no recognizable relation to the human figure."⁵ The group deities are highly stylized and abstract (Fig. 15-8). The knobby projections running down the body should be viewed from the left. Then they may be seen as a series of highly conventionalized human heads and figures.

A most interesting example of symbolic abstraction is found in the worship of ceremonial tools as representing the god of a cult of craftsmen. The superbly fashioned adze from the Cook Islands (Fig. 15-9) is the apotheosis of their basic tool. They literally worshiped the tools with which they worked. Nevertheless, the Cook Islanders, although their craftsmanship was suffused with religious and magical quality, knew that good work calls for good tools and that unnecessary decorative embellishment can



Fig. 15-8. Carved wood representation of a clan deity from the Cook Islands, Polynesia. (Peabody Museum, Harvard University.)

⁴ L. O'Neale, lecture, *Seminar in Psychological Approaches to Culture*, University of California, Spring, 1941.

⁵ R. Linton and P. S. Wingert, *Arts of the South Seas*, p. 27.

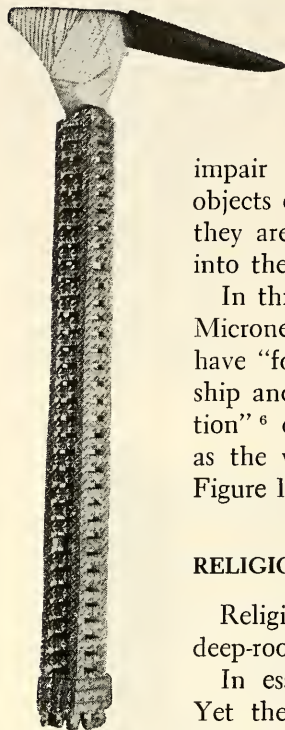


Fig. 15-9. Ceremonial adze. Cook Islands, Polynesia. (Smithsonian Institution.)

impair function. Therefore, although their tools and objects of use are created with a strong feeling for form, they are rarely decorated. All the decorative effort goes into the deified objects.

In this context, the mastery of functional form by the Micronesians should be mentioned. Only a people who have "found their aesthetic expression in fine craftsmanship and functional design rather than elaborate decoration"⁶ could produce such an exquisitely modern piece as the wooden dish from the Matty Islands shown in Figure 15-10.

RELIGION AND ART

Religion and art are by no means inseparable, but for deep-rooted reasons they have a strong affinity.

In essence religion is subjective—a matter of belief. Yet the covert concepts of religious belief are always translated to overt ritual and ceremonial forms. Religion needs objectifying, and art is one medium of outstanding effectiveness. By artistic embellishment the paraphernalia of religion and magic may be lifted out of the realm of ordinary artifacts or activities to become endowed with the qualities of the unusual that should be associated with the supernatural—the sacred.

⁶ *Ibid.*, p. 71.

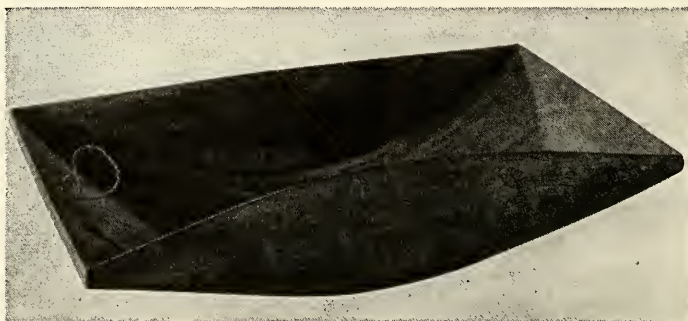


Fig. 15-10. Wooden dish from Matty Islands, Micronesia. A fine example of functional art. (University of Pennsylvania Museum.)

Yet even more important than the elaboration of religious paraphernalia is the representation of the spirits and gods. Gods are imaginative conceptions who exist in belief. The belief takes on a more convincing sense of reality if it can be translated into concrete form. Paintings and statues objectify the subjective concepts of the divinities. The presence of a god at a ceremony is more directly felt by the majority of men if the god is there in solid stone or wood looking down on the believers. It is true that the Judaeo-Christian religious tradition, in reaction to idol worship, tabus representations of God, the Supreme Deity, to such an extent that he is rarely pictured or sculptured, but the myriad representations of Christ, the Virgin Mary, and the host of saints prove that the principle is not wholly invalid for the Occidental religions either.

The representation or symbolization of primitive gods is done usually in the medium of sculpture or painting, or a combination of both.

Primitive religious sculpture appears in the form of masks or statues—idols. Without artists there can be no idolatry.

The use of masks to portray supernatural beings is prevalent among primitives in many parts of the world. Only Polynesia and Micronesia in the Pacific, and the Plains and Basin areas in the United States are conspicuous in the absence or near absence of masking. In the religion of the Plains Indians, deities are of little importance and ritualism is poorly developed. There is nothing much to mask. In Polynesia, although the pantheon is elaborate and deities are portrayed as statues, as we have



Fig. 15-11. Kwakiutl Indian double mask shown in the open position.

noted for the Cook Islands, masking is abjured, for reasons that are obscure.

In North America the masks of the Northwest Coast reach a richness of variety and form that is rivaled only in parts of Melanesia. Many Northwest Coast masks, by means of hinges and strings, have movable parts that may be manipulated by the actor to heighten the dramatic effect. Some, like the Kwakiutl mask depicted in Figure 15-11, have an inner and an outer face to portray the dual character (human and animal) of the early mythological progenitors. The combination of factors that has produced the exotic elaborateness of Northwest Coast masks is in the main (1) a social organization emphasizing hereditary status based in part on descent from mythological ancestral lineage founders, (2) elaboration of dance drama depicting the deeds of the mythical heroes, (3) technical mastery of the skills of carving, and (4) a vigorous creative drive to translate ideas and mental imagery into objective representations.

At the eastern end of our continent, Iroquois masks as made and used by the False Face Society of curers are not so rich in variety nor so elaborate as those of the Northwest Coast, but they bear the stamp of a grotesquely humorous realism designed to frighten away evil spirits (Fig.



Fig. 15-12. Carved wooden masks of the Iroquois Indian False Face Society. (*National Museum of Canada.*)

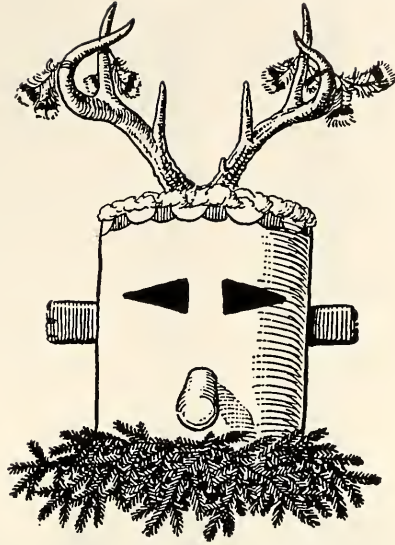


Fig. 15-13. Kachina mask. Santa Ana Pueblo.
(After White.)

15-12). While the intent of the masks is serious, one cannot help feeling that the artist carves with his tongue in his cheek.

A mask is not necessarily art. Dime-store false faces for Halloween are genuine attempts at representation of something or other, and they surely titillate the spines and hair roots of small boys and girls, but it is unlikely that they ever speed the pulse of an art critic. Some Pueblo Indian masks have artistic qualities. Many do not, for they are nothing more than cylinders that cover the head like an inverted bucket (Fig. 15-13). Although Pueblo masks have various appendages and are painted, little effort is expended to work out notable patterns of line or color. Southwest Indians do little wood carving, and none of their masks are made of wood.⁷ Leather (occasionally gourd or wicker) is the material used—a medium that does not lend itself to delicate molding or modeling. Although Pueblo design in pottery has reached a high art level, only the crudest of geometric design patterns are transferred to the masks. Thus in spite of the ritual importance of masks in Pueblo society, they have failed to become objects of intensive creative artistic interest. All the ideological stimuli for artistry in masks are present, but unlike the cultural situation on the Northwest Coast, no suitable technical medium is at hand in the Pueblo cultural tradition; the Pueblo religious craftsman has turned his creative aesthetic interests elsewhere.

Masking associated with religious belief has generated rich art products in both Africa and Melanesia, but of the two areas Melanesia has been

⁷ E. C. Parsons, *Pueblo Indian Religion*, Vol. 1, p. 340.

the more prolific. Hence we shall briefly discuss its products. In Africa and Melanesia the worship and veneration of ancestral spirits looms large in virtually all tribal religions (see Chap. 31). In Melanesia, particularly, the masks are representations of ancestors and are used in elaborate memorial rites. On the island of New Ireland, this complex reached its most elaborate expression in the ritual and art of the *malagan*, a system of festivals in memory of the recently deceased.

Tradition decreed so strongly that these ceremonies be performed that the survivors of the deceased would lose caste if they did not conform, and their prestige would be enhanced in proportion to the magnificence of the ceremonies held. This attitude served as a powerful incentive to provide the maximum of food for the feasts and the richest possible carv-



Fig. 15-14. Boar's head mask. Carved and painted wood. New Ireland, Melanesia. (*Chicago Natural History Museum.*)

ings.⁸ Some of these carvings were intricately worked plaques, but most of them were masks. Colored in red, yellow, blue, and white, they are truly spectacular and impressive (Figs. 15-14 and 15-15). Obviously they are the work of professional artists, who are, in fact, well paid for their services, which are secretly performed within a high-walled enclosure close by the cemetery of the clan that is holding the *malagan*. The sculptors work for nearly a year preparing the boards and masks before they are all finally ready for public display and use. In style, as Wingert has noted, the basic carving, although complex, is well organized, while the painted surface designs are overelaborate, even jittery.

Statuary as a medium of primitive religious art is common in Africa and Melanesia, and also in Polynesia and Central America. African statuary has had considerable influence upon modern European artists. It possesses a living quality eagerly sought after by modernists. It embodies the people's hopes and fears; it terrorizes or delights them as it portrays the nature of the gods on whom they lean or before whom they prostrate themselves.

This is true of African sculpture, as well as Polynesian and Melanesian. The artist is close to his work, and his work is close to the interests and well-being of his people. He is in his society what the modern artist would like to be in ours.

Mass, solidity, and plainness of surface are the impressive features of African Negro sculpture, even though the figures are not usually very large. These qualities are partly induced by the nature of the material in which the artist works, partly by his own inimitable style. The material is hardwood—mahogany, aristocrat of timbers, and ironwood—tough challenging material. No light-minded whittler can work the sculptor's transformation on such a block. The wood is close-grained and invites a high polish with dark lustrous tones. The glistening highlights of the smooth Negro skin are beautifully reflected in the finished statues. The wedding of subject matter and materials is perfect.

⁸ Linton and Wingert, *op. cit.*, p. 160.

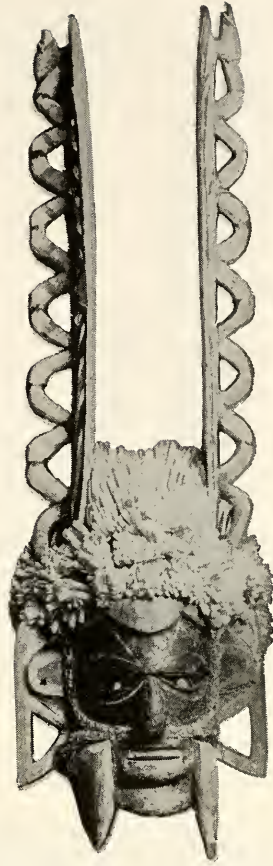


Fig. 15-15. Human mask, carved and painted wood. New Ireland, Melanesia. (Museum of Art, Rhode Island School of Design.)



Fig. 15-16. Bakongo fetish figures. (Brooklyn Museum.)

African Negro sculpture is characteristically disproportionate (Fig. 15-16). The head is always too large for the torso; the legs are squat and sturdy. All the work is subject to the limitations of the mass of the block with which the artist works. That is to say that the African woodworker is no joiner. Since he cannot attach projecting pieces to the mass, the arms must be formed close to the body. The legs must be confined within the area of the original block. Such limitations contribute to the feeling of compactness that emerges from the art. Concentration of attention on the head of the statue, lineal elongation of the body, and dwarfing of the lower limbs are matters of stylistic choice in the African tradition.

It is true that to those of us who have been trained in the naturalistic idealism of sculpture in the Greek tradition, African distortions appear at first as shocking grotesquerie. But, with familiarity, the cubic way of cutting out of surfaces, the rhythm that moves between the parts of the statue, the basic simplicity in its generalization of the human figure, and the exquisite texture of the finish combine to caress the aesthetic sense of the sympathetic observer.

Yet our emotional response is only a dilute aesthetic reaction hardly comparable to the tremendous emotional significance of these statues for the Africans. The overtones with which the mortuary and fetishistic pieces are freighted for the native can never be sensed by outsiders. Most African

statues represent dead ancestors; they are created to house their spirits. The statue, when the spirit has taken up its abode, is in the true sense a fetish.⁹ It is not just a work of art to be viewed objectively in a museum. It is a personage, alive with all the pulsating powers of the personality it represents—powers that are superhumanly potent because the one it represents is no longer mere man but god.

To go into a consideration of Melanesian statuary is not possible here. The varieties of form are too great. But from one end of the area to the other, representative ancestral sculpture is found. Most of it, particularly that of the Papuan area, has none of the stylistic slickness of the African work. Color and form in Melanesia are violent and disturbing. This, however, is not true of the ancestral fetishes fashioned from tree fern and set up about the dance clearings on Ambrim Island in the New Hebrides. While it is extremely unlikely that a Melanesian would be moved to laughter at the sight of a group of bug-eyed statues peering out from the jungle, the reader may decide for himself whether or not a ludicrous gathering is portrayed (Fig. 15-17).

SYMBOLISM IN ART

A symbol is any phenomenon that stands for something else in the idea system of a culture. It is so closely identified with the symbolized object in meaning that it stimulates like responses.

⁹ See R. H. Lowie, *Primitive Religion*, pp. 268–270.



Fig. 15-17. Ancestral figures carved in tree fern. Ambrim Islands, New Hebrides, Melanesia. (Chicago Natural History Museum.)

A general characteristic of symbols is their nondiffuseness. In one form or another, symbols are always overt; they must be seen, heard, felt, or smelled. They condense abstractions into delimited objects. Words are vocal symbols.

Art symbols are combinations of line, color, texture, form, and sound that stand for concrete objects or abstractions. They also possess definite aesthetic qualities.

Symbolic art is at the opposite pole from naturalistic representation. Stylization and conventionalization are intermediate forms. In conventionalized art the process of selection and elimination of detail has gone so far that, although a perceptible similarity to the original object is still preserved, the representation has become more symbolic than naturalistic.

Evolution in Art. The genetic relation of symbolism to naturalism in art has long stimulated the interest of anthropologists. In the late nineteenth century it posed one of the primary problems upon which such writers as Balfour, Haddon, and Holmes worked.¹⁰ Current anthropological interest is focused upon the sociopsychological functions of symbolism rather than upon its evolution, but the genesis of symbolism remains an important cultural problem.

Meaningless geometric decorative design is rare among primitives; there is almost always some consciousness of symbolization. But the degree of consciousness may be more or less sharp, the meaning of the symbols more or less standardized, according to the person and the culture.

Thus among the Arapaho, according to an early study by Kroeber,¹¹ beadwork patterns had the symbolic values shown in Figure 15-18. Cer-

¹⁰ H. Balfour, *The Evolution of Decorative Art*; A. C. Haddon, *Art in Evolution*; W. H. Holmes, *Ancient Art of the Province of Chiriqui* (Bureau of American Ethnology, Annual Report 6, 1888), pp. 13-186.

¹¹ A. L. Kroeber, "Decorative Symbolism of the Arapaho" (*American Anthropologist*, Vol. 3, 1901), pp. 308ff.

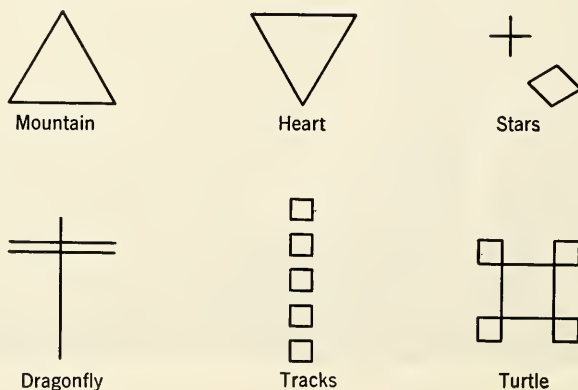


Fig. 15-18. Conventional symbols in Arapaho beadwork designs. (After Kroeber.)

tain patterns had multiple symbolic values, however, variously interpreted in accordance with their context and the intent of the beadworker. The simple diamond, listed as a star symbol, can also stand for a navel, an eye, a lake, a person, life, a buffalo wallow, or the interior of a tipi. The personal factor loomed so large in symbolism that conscientious Indians refuse to interpret the ornamentation on another person's article, on the ground that they do not know the artist's intent. Nowadays, however, Indians engaged in commercial trading will make up glib and cryptic interpretations for the white man who insists on knowing the meaning of the designs. It is all a part of the sale.

Associative symbolism can be arrived at from two directions. Geometric forms may be created out of doodling, or the inherent limitations and possibilities of a technique, such as twilling and weaving, may suggest an idea that is associated with the form, just as people try to tell what the ink blots remind them of in Rorschach tests. Or, on the other hand, the artist may make a naturalistic representation of something. Then, through the course of time, the naturalistic form is transformed into a conventionalized symbolism by subsequent artists.

One of the best demonstrations of the second process is that advanced by Holmes in his discussion of Chiriquian pottery designs from pre-Columbian Panama.¹² Among the several design motifs discussed by Holmes, that of the alligator is most arresting. In Figure 15-19 some of the alligator designs are arranged to show progressive abstraction from stylized representations.

In the upper left is the painted figure of an alligator with upturned snout and tail and dots to represent his scales. Below him is a conventionalized figure of an alligator that is almost unrecognizable, while below it appears a meandering abstraction that would be hard to identify as an alligator symbol if it were not that more realistic representations are available for comparison.

In the upper right is a simple curvilinear representation of an alligator that is progressively simplified through symbolic abstraction to become a mere curved line and a dot.

The "alligatoric" symbol encased in the circular field in the right bottom is apparently abstracted from the sort of alligator picture embraced in the trapezoidal field shown to the left of it. To fit his picture into the field or area to be covered by the picture, the artist has bent the tail of the alligator down while curving the tip inward. The head is turned in to fit into the dip formed by the beast's sagging back. The legs and the double-hooked representation of scales at the back of the neck form three appended units.

Although the complex spiral shown within the circle is a far cry from an alligator, it is most assuredly derived from the idea of the alligator

¹² Holmes, *op. cit.*, pp. 171-186.

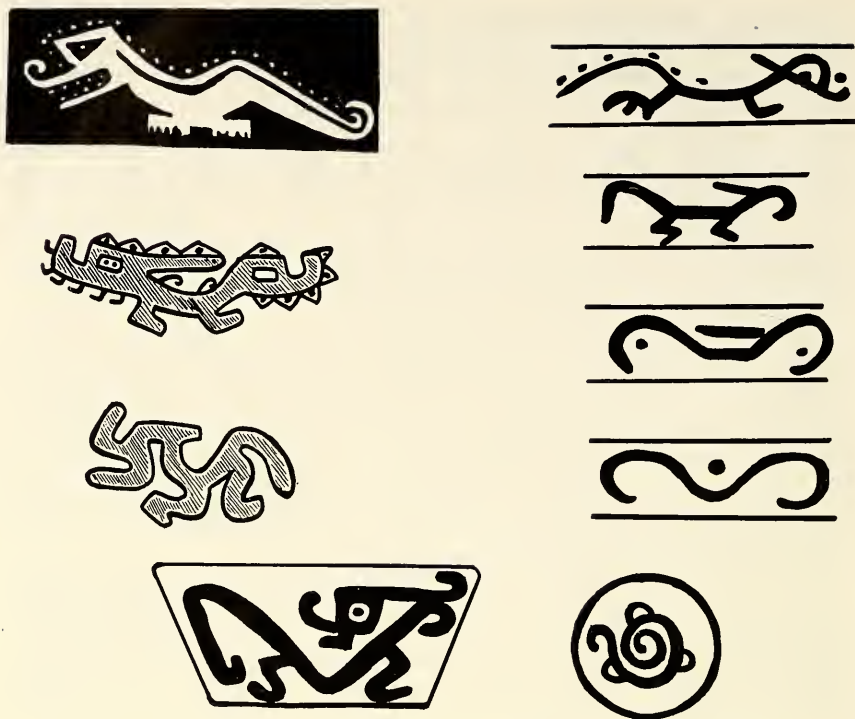


Fig. 15-19. Conventionalization and abstraction of alligator designs on Chiriquian pottery. (After Holmes.)

represented to the left of it. It occurs on pottery of a type that is commonly decorated with alligators; it has the same in-turned hook of the tail; it has three semicircular protuberances (no more, no less) just as the alligator has three groups of semicircular legs and neck scales; the inner loop of the spiral corresponds to the hooked loop of the alligator's nose. What looks like geometric scribbling is a meaningful symbol abstracted from a stylized representation of a real animal form.

Holmes was quite convinced that in the case of Chiriquian forms a definite evolution from realistic through conventionalized to abstract symbols occurred. Critical objections have been raised to this thesis because it implies a temporal sequence from a typological classification, and Holmes had no proof that the realistic forms were actually earlier in time. Boas and others have pointed out that since in some known instances the evolution of an art style is found to have moved from geometric figures to realistic,¹³ there is no justification for assuming priority of naturalistic

¹³ See F. Boas's study of Eskimo needlecases. Archaic geometric decorative elements are shown to have evolved into animal figures. *Decorative Designs of Alaskan Needlecases* (United States National Museum, Reports, Vol. 39, 1908), pp. 221-344.

forms unless there is stratigraphic or actual historical evidence for implying such a time sequence.

While it is true that there is no direct evidence of temporal sequence in the Chiriquian series, the probability that the abstract designs of Chiriquian ware are the derivatives of the realistic designs is certainly much greater than the reverse possibility.

ART AND WRITING

All art is a form of communication. Writing is communication by means of visual symbols substituted for spoken words. All writing is, therefore, symbolic and its origins lie in symbolic art and thought.

Conventionalization is often discussed as a process of degeneration of art. This is true only when conventionalization reflects a decline in technique—a simplification of line and form due to slovenliness or sheer lack of skill on the part of the artist. It is not true when the interest of the artist is actually shifted from the *image* of the object portrayed to its *meaning*. To abstract the meaning of an object and to be able to represent it with a simple symbol requires a degree of mental sophistication that is on a high level of performance.

When archaeologists lament the “decline” of Paleolithic art and its “degeneration” to the red ochre paintings on pebbles in the Mesolithic culture of Le Mas d’Azil in France,¹⁴ they are shedding useless tears. The so-called degenerate figures on the painted pebbles are the rudiments of an embryonic system of writing. Lament the invention of writing, one of the greatest intellectual feats of human history! Lament the attainment of the one feature of culture that all anthropologists agree distinguishes civilized culture from primitive.

In the cavern of Cogul, in Portugal, is a painted wall upon which prehistoric man of the Capsian culture has left many pictures of cattle, antelopes, and a ring of half-clothed females dancing about a phallic male. One of the pictures is that of a man confronting a stag (Fig. 15-20). On another part of the wall is a crudely conventionalized picture of a hunter who has just shot a large arrow at a stag. In yet another spot is a very queer figure. By itself it would be no more intelligible to us than the Chiriquian alligator symbols. We know, however, that the Capsian hunters were very much interested in dead deer, and with the more naturalistic examples before us, we can compare the number of prongs in the forklike projections on this figure with the prongs of the antlers in the naturalistic pictures. That a deer is meant is certain. Furthermore, since

¹⁴ For example, H. F. Cleland, *Our Prehistoric Ancestors*, p. 63: “The art of the Late Paleolithic had completely disintegrated and now consisted merely of crude geometric designs painted on pebbles and cave walls.”



Fig. 15-20. Three degrees of conventionalization in the representation of the stag in the East Spanish art from Cogul.

the four feet of the object are sticking straight up in the air, we may feel reasonably sure that this is the symbol for a dead deer.

Presumably this is a magic hunting symbol to help the deerslayer. A Winnebago Indian has described in detail the working of such magic. A vital fragment of his story is given in Chapter 11.



What took place at Cogul occurred elsewhere on the Iberian Peninsula. Obermaier, in arguing for a genetic relationship between the Azilian painted pebbles and the painted petroglyphs of the Spanish caves and rock shelters, prepared the comparative chart shown in Figure 15-21. On the left of the double line are petroglyphs from the Spanish caves. To the right are figures taken from the Azilian pebbles. Clearly, the Azilian  symbolizes a squatting female, and the  is a male. Azilian man had apparently progressed from picture writing to the use of ideographs—drawn or written symbols which stand directly for things



Fig. 15-21. Probable female and male symbols (?) on painted pebbles from Le Mas d'Azil (left) compared with female and male pictographs from late Upper Paleolithic cave art in East Spain. (After Obermaier.)

or notions instead of the sounds of words in the language of the users. Such is the first step in the evolution and origin of all systems of writing. The scribe is the intellectual offspring of the artist.

A poignant message left by a starving Eskimo effectively illustrates the essential nature of the pictorial ideograph. As seen in Figure 15-22, it reads, "I went out hunting in my kayak (a man in a boat); on this island I was stranded and pitched my winter tent (the crosshatched triangle); I had nothing (a man with outstretched arms), to eat (a man with hand to mouth)."

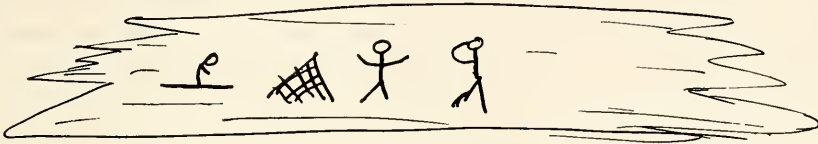


Fig. 15-22. Incised Eskimo pictogram.

On a much more elaborate level, the Chinese system of characters is fundamentally an ideographic picture writing that has become reduced to a set of time-saving brush strokes and is in some aspects also phonetic. Its ideographic quality may be readily discerned in the manner of writing such words as "prisoner" or "happiness." In the character for "prisoner" we see a man, 人, in an enclosure, 囹. "Happiness" is a woman (wife), 女, with a son, 子. The earlier pictographic derivation of a number of Chinese characters may be seen in Figure 15-23.





The occurrence in all languages of words that are identically pronounced but have different meanings (*homophones*)¹⁵ makes possible a

¹⁵ E.g., *saw*: (1) past tense of *to see*; (2) a cutting tool with a serrated edge; (3) to cut with a sawlike tool; (4) to cut as if with a sawlike tool; (5) a sententious saying, or proverb.



Sun Moon Mountain Child Horse Tree



Fig. 15-23. Pictographic derivation of some modern Chinese characters. (After Brouner and Fung.)

ready extension of ideographic writing as soon as a people is able to make the mental leap of partially disassociating the picture from the idea and linking it to sounds as such. Thus the Chinese word for *horse*, which is *mar* is represented . The Chinese term for *mother* used within the intimate confines of the family is sometimes *mama*. Phonetically, then, it would be possible for the Chinese to write *mama* as  . In this, however, there would be considerable ambiguity, for unless the context makes it clear, the reader would not be certain as to whether the symbol represented two horses or one mother. The Chinese get around this difficulty by first writing the symbol for woman, , followed by the homophone symbol for *mar*. Thus they have produced a way of writing "mama" which is half ideogram and half phonogram. Because of its way of mixing ideograms and phonograms, Chinese writing is classed as a *transitional system*, a means of written communication that has gone beyond the more primitive forms of pictography, but which still falls short of pure phonetic representation.

The ancient Egyptian, Hittite, Cretan, and cuneiform (Sumerian, Babylonian, Assyrian) script systems also developed out of picture writing by use of similar basic principles, although each evolved its own special forms. These and the Chinese plus the Indic and Mayan-Aztec systems are the only definitely known independent basic scripts invented by the mind of man. The transformation of art to writing is a supreme human achievement, so difficult that few peoples have achieved it on their own. Most men have achieved literacy through borrowing.

Our own alphabet had its beginnings in Egyptian pictography. Its development from early Greek inscriptions is well known, and, indeed, testified to by the very word by which we identify it: a compound of the first two words of the Grecian system, the *alpha* and *beta*. Beyond the Grecian alphabet, however, lies the Semitic from which it in turn is clearly derived: Hebrew, *aleph*, *beth*, *gimel*. Some Semitic symbols have clear derivation from Egyptian hieroglyphs; many do not. Known archaic Semitic inscriptions are few and far between, far too few to enable paleographers to advance well-founded reconstructions of the full history of the emergence of the alphabet. Although there are indications that parallel attempts at developing alphabetic systems were more or less simultaneously under way among several different Semitic people around the second millennium B.C., only one system (that of the Phoenicians) was finally perfected. From this, and it alone, have all the extant alphabets of the world descended. Here was a cultural triumph so difficult to conceive, and so perfect in form and function, that with minor modifications it could be adopted to any and all languages. It has superseded all other alpha-

betic systems; mankind has never again had either the need or the capacity to repeat it!

Of the Semitic symbols derived from Egyptian hieroglyphic ideograms, the first letter of the alphabet will suffice for illustrative purposes. *Aleph*, in Semitic, means "ox." The Egyptian hieroglyph is . On the Moabite stone, which presents a Semitic inscription of Mesha, king of Moab, in the ninth century B.C., the symbol is formed with three straight lines, . In later Greek it was inverted on its horns, and became A. Similar transitions may be seen for *beta*, *gamma*, *delta*, and other letters. The Egyptian word sounds for "ox," "house," etc., were ignored by the Semitic scribes; what they succeeded in doing was to make pictorially derived symbols from Egyptian prototypes, which were subsequently associated with the separate consonants that went to make up their speech. The Semites never included vowels in their script, but wrote each word only with its consonantal sounds. The *aleph* symbol stood for the glottal stop which is exceedingly important in Semitic speech. The Greeks had no use for the glottal stop but they were able to represent the vowels of their speech in a way the Semites could not, and they completed the basic modern alphabet with the invention of vowel symbols. They converted the A to represent the first vowel and made other adjustments to take care of the rest.

The capstone was thus put on the transition from art to writing. The communication of generalized states of emotion and ideas through the aesthetic medium had at long last been transmuted to the communication of precise linguistic expression through phonetically representative symbols.

SUMMARY

Art is the product of a deep-rooted human urge to give expression to emotional drives through rhythmic patterns in line, sculpture, dance, music, and literature. Primitive art lacks only mastery of perspective, although in the art of any given tribe one or another of the known major techniques of art may be lacking.

Decorative art is that which is added as an embellishment to an artifact. It may be either formal or representative. The particular selections of form, pattern, and technique that distinguish a given art tradition from others are what mark it as a *style*.

Art and religion tend to be closely related because both give expression to emotional and ideational feelings. Art provides a convenient outlet for the subjective side of religion.

Representative art does not necessarily precede symbolic art in the development of an art tradition. But it is evident that writing evolves out of

progressive conventionalization of representative art forms until the units of symbolic representation ultimately stand for sounds rather than for things or ideas as such. Then a phonetic writing system is produced. Conventionalization may be the result of deterioration in artistic technique, but it may very well express a great advance in intellectual achievement as a kind of graphic shorthand.

SELECTED READINGS

- Boas, F.: *Primitive Art*. The classic work on the subject.
- Breuil, H.: *Four Hundred Centuries of Cave Art*. The most comprehensive summary of paleolithic art.
- Derringer, D.: *The Alphabet*. A detailed, but not too technical, discussion.
- Elwin, V.: *The Tribal Art of Middle India*. A descriptive account with good illustrations of the arts, crafts, and bodily ornament of a primitive people.
- Herskovits, M. J.: *Backgrounds of African Art*. A useful survey.
- Inverarity, R. B.: *Art of the Northwest Coast Indians*. Profusely and beautifully illustrated.
- Krieger, H. W.: "Design Areas in Oceania" (*United States National Museum, Proceedings*, Vol. 79), pp. 1-53. A good example of an ethnological study of stylistic distributions.
- Kroeber, A. L.: "Art," in J. H. Steward (ed.), *Handbook of South American Indians*, Vol. 5, pp. 411-492. Surveys the field for South American aboriginal cultures.
- Linton, R., and P. S. Wingert: *Arts of the South Seas*. Well-illustrated, with a stimulating discussion of the subject.

Part Four
PRIMITIVE CULTURE

C. MARRIAGE AND KIN



Bride, groom, and kin. Peru. (*Peru-Cornell Project, photograph by John Collier, Jr.*)

CHAPTER 16. Selective Mating and Preferential Marriage

BECAUSE man is a bisexual organism, he cannot escape the elemental dictates of sex any more than he can stop eating—and still survive.

Sex, as any adult knows, is a problem. It has been a major problem for all human societies ever since man became man. It will undoubtedly remain such for all human societies as long as they continue to exist. The prolonged dependence of the human individual on adult nurture, character shaping, and culture transmission, tied in with the peculiarities of relations within the conjugal family (which is a universal form in all human societies) is an unknown virtue. In this fact, all societies, primitive and civilized, impose on sexual activities, and undertake to steer such a life in promiscuous allowed in certain clearly defined directions. There are no attachments, one a promiscuous society, and it is unlikely that there ever of the severe guilt man first rose above the pongoid level. To be human among our youthful people, to be subject to sexual inhibition. How primitives to prepare in what ways, varies like everything else from culture to culture. The test of the complex society, anthropological examination of the cross-culture into marriage with all purposes and engenders a greater degree of inhibition. Nowski's principle of the in recent times it appears to be moving away from there is little doubt but that.

In our day so be served in some extend a blanket prohibition against all sexual intercourse to permit the free monogamous family relationship of husband and wife. Because of sheer indifference formally bans all premarital intercourse; it puts much emphasis can be sexual relations outside of marriage between two people as a factor in mate selection (whom is married); and it invokes severe moral and legal penalties on the hapless heads of those who are exposed as violators of the prohibition. Such an all-sweeping limitation on sex is rare among the gamut of human cultures.

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Professor Murdock's comprehensive survey of kinship institutions among the representative sample of 250 societies in the Yale University Cross Cultural Survey leads him to estimate that, "From available evidence . . . it seems unlikely that a general prohibition of sexual relations outside of marriage occurs in as many as five percent of the peoples of the earth."¹ From this it can be seen that our own position is highly atypical.

Nevertheless, it still remains true that all societies impose a number of limitations on sexual activity and attempt to regulate reproduction and mating.

By mating is meant *the pairing off of individuals of opposite sex under the influence of the sexual drive*. It is preponderantly a psychophysical phenomenon, basically instinctive in nature. But among human beings it is definitely influenced by various culture patterns that control the forms of its expression. The purpose of this chapter is to describe the nature of the cultural controls of mating.

¹ G. P. Murdock, *Social Structure*, p. 264.

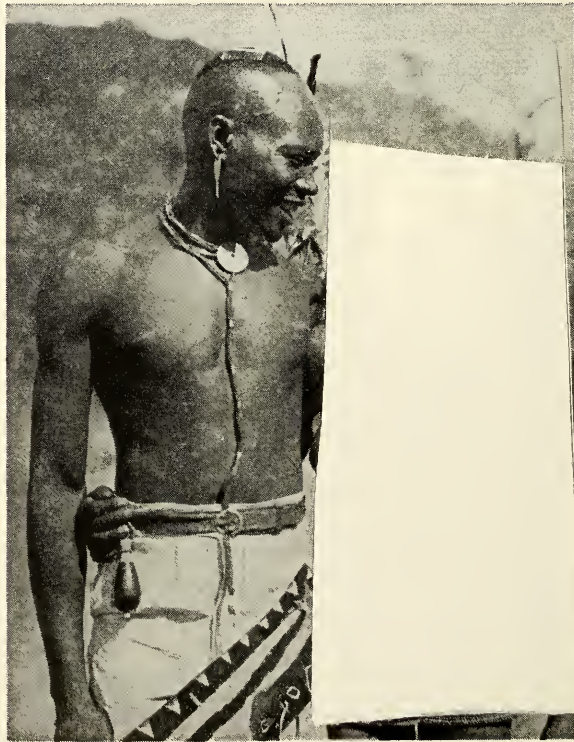


Fig. 16-1. Meru mates. Kenya, East Africa. (British Information Service.)

Mating implies more than mere sexual intercourse; a degree of permanence is involved in the association of the mated pair. However, mating is not to be confused with marriage, because, intimately related though the two may be, they are not inseparable. As in the case of nonhuman animals, mating can occur on a purely biological plane, without benefit of marriage—the connubial institution. Conversely, marriages can occur without mating.

In spite of the fact that marriage meets basic biological needs, it is a social institution determined *in toto* by culture. *Marriage is the complex of social norms that define and control the relations of a mated pair to each other, their kinsmen, their offspring, and society at large.* It defines all the institutional demand rights, duties, immunities, etc., of the pair as husband and wife. It is the institution that shapes the form and activities of the association known as the *family*.

An *institution* is the web of customary behavior that centers on a group of nuclear interests. An *association* is an organized group of people acting in accordance with institutional ways.

PREMARITAL MATING

In contrast to our fairly strict usages, a number of primitive societies accept free premarital sexual experimentation without disapproval.

Of the Trobriand Islanders it is written, presumably without exaggeration, that

. . . chastity is an unknown virtue among these natives. At an incredibly early age they become initiated into sexual life, and many of the innocent-looking plays of childhood are not so innocuous as they appear. As they grow up, they live in promiscuous free love, which gradually develops into more permanent attachments, one of which ends in marriage.²

In the absence of the severe guilt feelings that ordinarily color premarital sex activity among our youthful population, premarital activity may function among primitives to prepare young people for marriage. It can provide an intimate test of the compatibility of mating pairs before they actually enter into marriage with all its social and economic responsibilities. This is Malinowski's principle of the *social function of premarital sexual activity*.³ There is little doubt but that the end to which Malinowski calls attention may so be served in some societies, but it seems more likely that societies are apt to permit the free play of the biological drives before marriage because of sheer indifference to the effects of such activity. At any rate, not much emphasis can be placed upon the function of premarital experience as a factor in mate selection in the vast number of primitive

² B. Malinowski, *The Argonauts of the Western Pacific*, p. 53.

³ B. Malinowski, "Culture" (*Encyclopedia of the Social Sciences*, Vol. 4, 1931), p. 630.

societies in which the boy or girl have very little to say as to whom they shall marry. It will be shown later to how small a degree marriage in primitive society is concerned with sexual gratification and personal compatibility on the basis of romantic love. Primitive societies are much more concerned with (1) the biological perpetuation of the group, (2) the perpetuation of the culture and social existence of the group through proper nurture and training of the oncoming generation, and (3) last but not least, the furthering of immediate special interests in prestige, property, and prerogatives of the *extended families* of the pair to be joined in marriage.

This last point is well illustrated in the practices of the Philippine Ifugaos, who permit free premarital sexual activity only for members of those classes in which there is not much stake in property and prestige. Each night adolescent boys of the lower and middle classes must seek the congenial comfort of the house of a widow, which also serves the regular purpose of a dormitory for unmarried adolescent girls because custom does not permit them to sleep under the family roof. In the deep of the night the boys try their luck at love-making. Much experimentation in different dormitories ultimately leads to a permanent attachment to some one girl—a form of companionate marriage that eventually blossoms into a fully accredited marriage, when the numerous exchange gifts have been made and family rituals of marriage have been observed.

Upper-class Ifugaos, however, behave in quite a different manner, since the parents do not care to run the risk of permitting their children to mate in accordance with mere amatory whim. The society of the Ifugaos rests on a subsistence base of wet-rice culture in paddies that have been carved in rugged mountainsides through the prodigious efforts of untold generations of labor. Possession of rice fields is a precious heritage: the major means to wealth, prestige, and upper-class status—the cherished goal of the Ifugao. Because family status rests heavily on property, marriage is a useful instrument for augmenting the status of the next generation by combining the resources of two families of property. To have a scion find a compatible but propertyless bride in the damsels' dormitory is, for the upper-class Ifugao, a greater calamity than for an American blue blood to marry a chorus girl. To avert such an eventuality, rich children of the Ifugaos are betrothed in infancy, or even before birth. A contract marriage is arranged by the parents, who guarantee the amount of land and other goods that will be conveyed to the bride and groom. Throughout childhood the boy and girl take turns living in each other's parents' homes, until they establish a home of their own on marriage, shortly after adolescence.⁴

A similar picture, in which freedom is allowed some young persons but

⁴ R. F. Barton, *Philippine Pagans*; also "Ifugao Law" (*The University of California Publications in American Archaeology and Ethnology*, Vol. 15, 1919), pp. 15-22.

not others, is derived from Samoa and elsewhere in Oceania. Boys and girls of the commoner class are allowed virtually unrestricted sex freedom "under the palms," but woe to the royal princess who does not preserve her chastity and is exposed at the public rituals of defloration when the emissaries of another village come to claim her for their royal chief. In the old days she was killed by her female relatives.⁵

Among the American Indians of the Plains we again find premarital unchastity the rule (except for the strict Cheyennes), but families of high standing endeavored to inculcate virtuous behavior in their daughters. The girl who retained unimpugned chastity until marriage was greatly respected in public opinion and doubly cherished by her husband.

This seeming paradox crops up in many ways in numerous societies, civilized and uncivilized. It certainly manifests a conflict of interests and values. Important elements in the situation include the desire of the individual for biological gratification between the attainment of puberty and marriage, on the one hand, and the sense of enhanced value in exclusive possession, on the other.

The illustrations cited above indicate that economic factors definitely influence the imposition of checks on free premarital sexual activity. This must have played an increasingly important role in the unfolding of human history as societies built up more and more property. The control of mating in order to effect the control of property, therefore, looms up as something of a necessity among civilized peoples in a way that is not the case with the more propertyless primitives. Mating becomes more than the crude expression of biological drives. It also binds and directs the disposition and control of property.

While economic determinism has a sturdy finger in the pie, other factors must also be recognized. Religious belief is pervasive. In the area of sex control its power cannot be overestimated. The Polynesian princess must lead a carefully guarded life, because she is inherently charged with mana and is therefore tabu to ordinary mortals. Inca maidens dedicated to serve the sun in the nunneries of Cuzco were required to remain virgins until they were married off to some worthy dignitary, who was the recipient of royal favor from the demigod, the Great Sun, the ruling Inca. Rome had her vestal virgins. And the military societies of the Cheyenne Indians each had four honorary virgins to perform ritual services in the society ceremonies. Sexual life is often incompatible with religion.

Shamans are generally devoted to this principle. Unless they are engaged in fertility rites to bring on a crop of babies or corn, they almost universally submit themselves to temporary celibacy when they are about to invoke their mystic powers. The belief is that the female physiology is itself charged with a mystic power of great potency. In this man-dominated world the unique female power is looked upon as evil and danger-

⁵ M. Mead, *Coming of Age in Samoa*, p. 98.

ous, dangerous especially to the mystic powers of men. Contamination of a male's supernatural power by the negative power of the female is believed to result from sexual association. When this attitude is exaggerated it leads to the sexual asceticism of some of the Late Classical cults and early Christianity, an asceticism that survives in the celibacy of the Catholic clergy and the Puritan distrust of sex that is embedded in much of our culture. Such intense elaboration of sex asceticism is only another example of the principle of skewed elaboration of culture. Sociology can adduce few good functional reasons for its existence. Psychiatry and psychology can adduce manifold instances of malfunctioning as a result of it—the psychotic and neurotic quirks of the repressed personality.

Various combinations of one or more of the considerations just mentioned have led a slight majority of contemporary primitive societies to prohibit, or at least to try to check, premarital sexual activity among their young. The Trobriand Island instance represents a minority situation. The primitive societies that do impose a check on adolescent premarital sex experience do so for the most part not because they view such activity as inherently evil, but rather because economic and other social interests have priority over sex. Ubiquitously, however, every society prohibits sexuality between brother and sister at whatever age they may be. This is the consequence of the universal prohibition of incest.

INCEST PROHIBITION

Mating with any person who is *culturally defined* as a genetic relative is commonly forbidden. Any such prohibited mating is incestuous. The prohibition of sex relations between genetic relatives is therefore known as the *incest tabu*. It automatically follows in the case of forbidden sex relations that marriage between persons subject to this rule is also forbidden.

Incest tabus are universal among all peoples, because incest is repugnant to the least as well as to the most civilized. The universality of incest prohibition and the fact that it is concerned with a basic biological act have led to the common view that it is instinctive. Universality, however, is not in itself any evidence of instinct. As well say that fire making is an instinct, because all peoples practice it! The weight of the evidence is on the other side. Incest prohibition is not instinctive; rather, it is rooted in a social, not a biological, basis.

Let us observe how this works. *The tabu on the mating of brother and sister occurs everywhere, as does the tabu on mating between parent and child.* The exceptions that bar absolute universality are few and far between, nor do they in any case apply to the entire population of any society. The exceptions to the brother-sister rule are the famous cases of

the royalty of Egypt, Hawaii, and Inca Peru. In these instances marriage between brother and sister of royal lineage was *required*, in the belief that the supreme royalty was divine and that marriage with mortals was a corruption of the divinity. But alas for ideals! Cleopatra, although she married her twelve-year-old brother, saw to his murder while she mated with Julius Caesar and Mark Antony.

Another special and very peculiar exception to the brother-sister tabu exists among the Balinese, who suppose that boy and girl twins have been too intimate in their mother's womb. The penalties for incest are severe in Bali, but in the case of baby twins, temporary banishment of the parents and the "erring" twins, followed by a ceremony of purification and atonement, negate the sin. This makes it permissible for the mating in the womb to be completed as a true marriage in later life.⁶ Ordinary brother-sister marriages are said to have been permissible among the aboriginal Ainu of Japan, but the evidence for this is merely mythological. Myth is not good historical evidence. It has also been recently reported that the Lamet tribe of Indochina countenances brother-sister marriage, if the pair have been raised in separate households, i.e., are not sociologically members of the same family.⁷

Such permissible marriages within the family show that when social considerations make it desirable, there is no horror of sex relations within the family.

More remarkable than the exceptions to the narrow rules of incest prohibition are the arbitrary practices of many primitives in the extension of the scope of relationship terms to include persons of diverse genealogical status in an arbitrarily established social status. American Indian boys and girls who have gone to white schools talk of "my sister" and "my Indian sister." What is the distinction? To us a sister is a girl born of the same mother as oneself. However, Catholics do stretch the term to include nuns, and members of a sorority extend the term to include each other. When the Indian boy of today makes the distinction between "sister" and "Indian sister," he is trying to make clear that the Indian concept of "sister" is somewhat different from the white man's. If the speaker is a Seed Eater Shoshone from Idaho, the term *sister* in its native sense means not only "daughter of my own mother" but includes *all* female cousins through both father and mother. Primitives take their relationship terms quite literally; therefore, a girl called "sister" *is* a sister and must be treated as such in all respects. Sex relations and marriage with all "sisters" are therefore automatically tabued.

This broadening of relationship categories has been aptly called

⁶ J. Belo, "A Study of a Balinese Family" (*American Anthropologist*, Vol. 38, 1936), p. 30.

⁷ K. G. Izikowitz, *Lamet, Hill Peasants in French Indochina*, pp. 134-135.

lumping by Lowie.⁸ It is the usual characteristic of relationship systems that are identified as *classificatory*. Because most primitive systems are classificatory, many individuals are embraced within the incest prohibitions by the simple fiat of a social system that dubs them as "father," "mother," "brother," or "sister," when in biological fact they are no such thing.

The Shoshones and the Hawaiians lump all cousins in a single sibling (brother and sister) category. Many other primitives indulge in a curious discrimination that intensifies the impression of arbitrary disregard of biological reality. A certain type of cousin is classified as brother or sister, but another type of cousin is regarded as not being a relative at all. The first type of cousin we call *parallel-cousins*, because the parents through which they are related are of like sex. The other type of cousin we call *cross-cousins*, not because of any temperamental peculiarities but because the parents through which they are related are of opposite sex; there is a crossing over from one sex to the other in the genealogy of relationship (Fig. 16-2). In any tribe in which cross-cousins are distinguished from

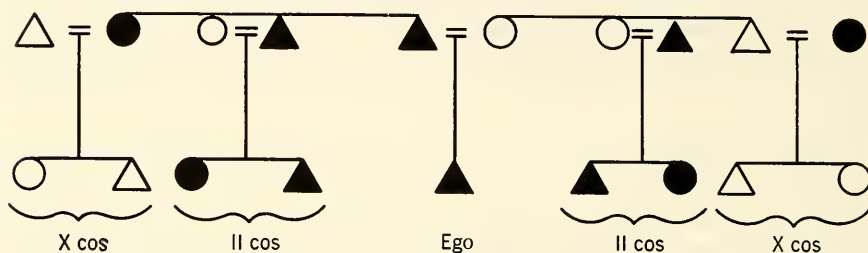


Fig. 16-2. Genealogical separation of cross- and parallel-cousins.

parallel-cousins, cross-cousins are never reckoned as belonging to the same kinship group. In the dogma of the social system they are *not* relatives. The logic of such a premise produces a biological absurdity, but let the biologist protest in vain! To marry a parallel-cousin may be incest; to marry a parallel-cousin who is a member of one's own clan *is* incest; but to marry a cross-cousin may be the thing to do. It may even be the required thing to do! Thus one is forbidden to marry a first cousin of parallel-relationship, whereas it is good form to marry a first cousin of cross-relationship. Both are equally close in genetic kinship, but the second is no relative at all in *culturally determined* kinship.

Anthropologists recognize a well-established law governing the extensions of incest tabus beyond the immediate conjugal family. The specific identification of the individuals who are brought within the scope of the

⁸ R. H. Lowie, "Kinship" (*Encyclopedia of the Social Sciences*, Vol. 3, 1931), pp. 568-572.

incest tabu is a function of the forms of kinship organization that prevail in a given society and of the amount of time that has elapsed since the particular form was adopted by that society.

One or more types of cousins are tabued in the vast majority of societies.⁹ In a notable number with lineage or clan systems, however, sex relations with cousins who fall outside a person's lineage or clan are allowed, and marriage with these particular cousins may even be socially encouraged or required. Although whether or not a particular kind of relative is tabued depends upon the social structure of society, there is no category of relationship that is not tabued in some society or other around the world.

Functional Reasons for the Incest Tabu. It has been argued by Westermarck¹⁰ and Morgan,¹¹ among earlier anthropologists, that primitive man became cognizant of racial deterioration resulting from close inbreeding. They averred that on this basis primitive man preserved his racial stamina by preventing close inbreeding through the establishment of incest prohibitions. The fact is, however, that inbreeding does not necessarily produce physical deterioration. It depends on the nature of the inbreeding stock. Inbreeding does no more than intensify the traits the stock possessed at the outset. Recessive traits have a better chance of obtaining somatic realization where inbreeding is marked. If undesirable recessives are in the stock, they may well come to the fore and deterioration may then result. Nevertheless, it is equally true that inbreeding intensifies the influence of dominant traits. A stock with desirable dominants becomes stronger. The end result may be good or bad; it all depends on the distribution of traits with respect to dominance and desirability. Among the mountaineers of Kentucky, the inbred populations of some pocketed valleys have been observed to send young men and women of consistently superior mentality to Berea College. The populations of other pocketed valleys in the same area are distinguished for the occurrence of epilepsy and a plethora of morons. Cleopatra, the last of the Ptolemies, product of twelve generations of brother-sister marriages, was hardly a specimen of physical degeneration, whatever may be said of her morals.

If biological factors do not suffice to explain so important a social phenomenon as incest prohibition, it behooves the anthropologist to discover what nonbiological factors may be responsible for such rigorous and universal rules. Unfortunately, all explanations of incest prohibitions must forever remain hypotheses, for the insurmountable reason that no observations can be made on any group of people in which there is an absolute absence of rules restricting mating and inbreeding. Nor is it probable that

⁹ Murdock, *op. cit.*, p. 286.

¹⁰ F. Westermarck, *The History of Human Marriage*, Vol. 2, pp. 218-241.

¹¹ Morgan, *Ancient Society*, p. 424.

an experimental incestuous society will ever be set up for scientific study. We can therefore do no more than accept as most probable that hypothesis which most reasonably fits the known facts. Of the many hypotheses that have been advanced to date, Malinowski's is by far the most satisfactory.

Malinowski posits the proposition that sexual affection is anteceded in the development of the individual by strongly conditioned parental and fraternal affection, based on intimate family associations, which occurs before the maturation of the sex drives. These are the affective emotions that cement the bonds of family and kin, that give solidarity to the foundation group of any society—the group of immediate kinsmen. The family is founded in part upon the sexual association of spouses, between whom the sex drive may have legitimate play. But sex is a dangerous element. From its drives arise powerful emotional disturbances of great disruptive potentiality. In preadolescence the sex drives are unmaturing; they are not yet dangerous. On maturation under unrestricted conditions, however, gratification of the sex drives would frequently be sought with those nearest at hand, toward whom one already has affection, the members of one's own household. This would naturally lead to mating between siblings and parents and offspring. The violent emotions engendered by sexual affection would blast and disrupt family unity built upon the earlier established filial-fraternal affections. *A house divided against itself cannot stand; it will become all one thing, or all the other.* Overt sexual rivalry within the functioning kinship group cannot be permitted. The solidarity of the foundation unit of society is protected against its disruptive effects through the universal incest prohibition and its variant extensions.¹² Promiscuity and the family cannot exist side by side; sex relations, except for those of the father and mother, must be barred within it. Thus the preservation of the intimate kin group, the foundation unit of society, is maintained.

The punishments, or negative sanctions, for the violation of the incest tabus vary greatly from one society to another, but a definite regional distribution of characteristic reaction is discernible. In Australia, where kinship is a subject of intense interest, most tribes punish incest with death. Plains Indians, on the other hand, do not consider incest either a crime or a sin. They simply look upon it as impossible behavior, so inconceivable that only insane persons indulge in it. Yet the punishment was mild in the few rare cases that have been recorded. A Dakota father of an incestuous brother and sister proclaimed, "Now I am the father of dogs!" Comanche informants cannot remember a single actual case of incest among their people, nor can they stretch their imaginations sufficiently

¹² B. Malinowski, "Culture" (*Encyclopedia of the Social Sciences*, Vol. 4, 1931), p. 630.

to give a specific statement of what the public reaction would have been had such a case occurred, except to say that the people would have shunned them and called them *keshuant*, crazy.

In ancient Bali the punishment was symbolic and devastating. The hapless couple were adorned with yokes customarily worn by pigs. They were then made to crawl on all fours to drink from the swill trough of the hogs. After this humiliation, they were banished forever from the village and their lands were confiscated. No other village would take them in for fear of ill luck and disaster. They were doomed to a fearsome existence alone in the jungle.¹³

The forensic Ashanti of the West African Sudan give vivid reasons for the imposition of the death penalty for incest. According to them, if the sinful crime were to have gone unpunished “. . . hunters would have ceased to kill the animals in the forest, children would have ceased to be born, the crops would have refused to bear fruit, the *'samanfo* (spirits of the dead ancestors) would have been angered, gods would have been angered, *abusua* (clans) would have ceased to exist, and all would have been chaos (*basa basa*) in the world.”¹⁴

Whether indoctrination of the young is so successful that no specific punishment for incest exists because incest never occurs (as in Comanche society), or whether the punishment be death, in all societies incest or its possibility is viewed with such emotional intensity that we commonly speak of the emotion as “incest horror.”

EXOGRAMY

Exogamy (Gr. *ex* outside + *gamos* marriage) results from the effects of the incest prohibitions as they affect marriage. Exogamy may be defined as *the social rule that requires an individual to marry outside the culturally defined group of which he is a member*. The universal conjugal family is always exogamous. Lineages and clans are almost always exogamous. Murdock found that only one in about twenty unilinear societies are nonexogamous in practice.¹⁵ The exogamous unit, it can be readily seen, is always a subdivision of a larger society.

In addition to the functions of the incest prohibitions, as we have already examined them, derivative functional effects resulting from exogamous practices broaden the scope of sociality among people and simultaneously enhance the diffusion of culture. The practice of out-group marriage allies two separate social units and strengthens the position of each, economically, militarily, and politically, thus strengthening also their

¹³ Belo, *op. cit.*, p. 29.

¹⁴ R. S. Rattray, *Ashanti Law and Constitution*, p. 304.

¹⁵ Murdock, *op. cit.*, p. 48.

ability to cope with the external forces that confront them. Culture growth is stimulated, because a new idea or invention developed within one kin group is more likely to spread to others when their members intermingle in marriage. There are thus some definite positive advantages in exogamy. This effect was seen years ago by the English philosopher, Lord Bolingbroke, who scouted the idea that incest aversion is the expression of an innate moral sense, as was argued by eighteenth-century Scottish moral philosophers. Bolingbroke baldly stated that far from being instinctive or innate, "the abhorrence is as artificial as the shame which leads men to cover their genitals or copulate in private." Rather, he argued, exogamy works "to improve sociability among men, and to extend it as wide as possible, in opposition to that insociability which is so apt to grow up between distinct families and states." Lord Bolingbroke even anticipated Malinowski's and Murdock's modern functional theory of incest prohibition by holding that an additional effect of the incest tabu and exogamy was to prevent the destruction of the foundations of society. Parents who marry their children, he reasoned, will weaken the respect of their offspring for the parents as the chief magistrates of the family; and what weakens the family weakens the greater commonwealth.¹⁶

PREFERENTIAL MATING

So integral and important an element in social structure is the family, that for most societies culture not only defines whom one may not marry, but goes much further to prescribe certain classes of persons with whom one ought to, or must, marry. These limitations constitute the rules of preferential mating. Each type of preferential mating has its own functional reasons for being and must therefore be explained separately. Furthermore, the operation and effect of any particular type of preferential mating may be different in different cultural contexts. This raises the necessity of special examination of the exact nature of the requirements in each culture if an accurate analysis is hoped for. To do this is beyond our powers in an introduction to anthropology, but the main characteristics of preferred marriage forms can be adequately formulated in terms of general principles.

ENDOGAMY

Endogamy (Gr. *endo* within + *gamos* marriage) is the converse of exogamy. It is *the social rule that requires a person to marry within a culturally defined group of which he is member*. The occurrence of endogamy

¹⁶ For further details, see A. O. Aldridge, "The Meaning of Incest from Hutcheson to Gibbon" (*Ethics*, Vol. 61, 1951), pp. 309-313.

is much less common than is exogamy. Unlike exogamy, there is no particular universal type of social group to which the endogamous rule applies. Nevertheless, endogamy is found to some degree in many societies, although the rule is not always explicit and verbalized. It frequently expresses itself as a tendency, without actually being a requirement. It may also apply to any kind of social group. The discussion of incest prohibitions has shown, however, that because of the prevalence of exogamic rules, the application of endogamy to family or clan is most exceptional. Rules of exogamy and endogamy are contradictory and cannot apply simultaneously to the same social group. They do, of course, exist side by side in the same culture.

The world's most famous system of endogamy is the caste organization of India, with its 2,000 or so castes and subcastes between which marriage was formally prohibited. The new constitution of India, adopted after the winning of independence from British rule, attempts to apply Mahatma Gandhi's principles of democratic equality and brotherhood through the legal abolition of castes and caste rules of endogamy. An interesting reaction on the part of various Indian castes and tribal groups that have caste status is a current effort to put their customary rules into writing through legal codification. They hope to preserve their identity by counteracting legal action with recourse to the same kind of device.¹⁷

The African Sudan exhibits numerous tribes in which caste endogamy is prevalent. Among the East African Masai, ironworkers form a pariah occupational caste subject to the domination of the warrior caste. Each caste marries within its own numbers. The neighboring Ruanda are divided into castes made up of the lanky, ruling, pastoral nobility—alien conquerors from the north—the horticultural Hutu, and the lowly Twa hunters. A ruling caste Tussi may on occasion marry a Hutu woman, if his fortunes have sunk so low that he cannot find a mate of his own rank. But neither a Tussi nor a Hutu will stoop to marriage with a Twa!¹⁸

Detailed examination of a number of caste structures in different parts of the world will be found by the reader in Chapter 24.

While castes are explicitly endogamous, social classes are prone to exhibit similar tendencies without recourse to explicitly prescribed rules. We are all familiar with this manifestation in many subtle ways. Its roots are in the desire to retain the exclusive and distinctive qualities of self-regarding in-groups. Inter-marriage is a leveler and universalizer of culture and race. In-groups who implicitly feel that their values are too dear to leave open to competition, raise the barricade of endogamy. Orthodox Hebrews may not marry Gentiles on pain of banishment from church and family,

¹⁷ J. Naik, personal communication, January, 1955.

¹⁸ See R. H. Lowie, *The Origin of the State*, pp. 29–33, for a detailed discussion of Ruanda caste interrelations.

followed by the performance of mourning rituals for the dead. Stumbling blocks are put in the path of marriage between Catholic and non-Catholic.

Special forms of endogamy which occur among primitives include the village endogamy of the Bella Coola Indians of the Northwest Coast, and the spectacular lineage endogamy of the tribal societies of the Middle East.¹⁹

Parallel-cousin Marriage. The lineage (see Chap. 19) is in many primitive societies *the* important unit of social structure, a corporate body by means of which dominant economic, political, and personal interests are given form and find expression. Lineages within a society are usually balanced against other lineages in economic and political opposition counteracted by integrating ties of marriage, economic exchange, ritual, age classes, and threats of attack from outside forces. In virtually all societies, lineages are exogamous, and ties between lineages are extended along the lines of interlineage marriage. The Arabs constitute a great exception.

Among the Islamic Arabs, a man has an absolute right to marry his father's brother's daughter; a girl must marry her father's brother's son unless he explicitly waives his preferential rights in favor of another. For this waiver of his right to his parallel-cousin, he can demand and receive a good payment. What is more, if a girl marries another man without her cousin's permission, he may be privileged to kill her or her father, his uncle, if the uncle is the one who arranged her illegal marriage.

So contrary to the usual application of rules of incest prohibition to the recognized kinship group is this Arab practice, that powerful social factors must be operating through the culture to have brought it about. Prof. Robert F. Spencer's hypothesis rests on the fact that in the Arabian and Saharan deserts, Arabic nomadic social organization is a segmentary lineal organization of a very simple type.²⁰ Political union above the level of the maximal lineage is weak and transitory. A man's rights to land flow solely from his lineage. Lineages are military units engaged in frequent wars with other lineages. Security of life and property lies in tight adhesion to the lineage. In this social system few advantages are to be found in marital alliances to other lineages. Marriage within the lineage solidifies lineage bonds—an action that is functionally so important in Arabic society that parallel-cousin marriage is recognized as an imperative preferential form. It is more than custom; it is law.

Barth demonstrates that for those Kurds who have developed a feudalistic man-land relation in addition to the lineage one, parallel-cousin mar-

¹⁹ R. Patai, "Cousin-Right in Middle Eastern Marriage" (*Southwestern Journal of Anthropology*, Vol. 11, 1955), pp. 371-390.

²⁰ R. F. Spencer, "The Arabian Matriarchate: An Old Controversy" (*Southwestern Journal of Anthropology*, Vol. 8, 1952), pp. 481-490.

riage is statistically much less frequent. Where moderately adequate political-economic institutions of a different type supplement the Arabic lineage structure, parallel-cousin marriage becomes functionally less significant, and in fact much less frequent, in occurrence.²¹ Patai's report shows that city Arabs, for whom the lineage increasingly loses its significance, and modernized Arabs are rapidly reducing the practice of cousin-right to a vestigial custom, as its functional reasons for existence dissolve.

The powerful insistence on parallel-cousin marriage among the Arabs reinforces the principle that the incest tabu is nonbiological in nature. When there are impelling reasons for marriage within the culturally defined kinship group, they may even negate the normal exogamic tendencies.

AFFINAL, SUBSTITUTION, OR CONTINUATION MARRIAGE

Much more pervasive than the general rules of endogamy are the rules of preferential marriage that bring about exogamous marriages between in-laws, hence called *affinal marriages*, i.e., marriage to relatives through marriage. Because a person must already have been married to be able to marry an in-law, such marriages are *secondary marriages*. To identify such marriages as affinal, as is the usual practice of American and English anthropologists, is to emphasize the form of the marriage. The Dutch anthropologists, who have given more weight to the functional aspects of such marriages, call them *substitution* or *continuation marriages*, for their function is to continue the relationship between the two kin groups of the original marriage partners and to hold the children of the original marriage within the extended family.

Levirate. Marriage of a woman to her brother-in-law, known as the *levirate* (L. *levir* brother-in-law), is the most popular affinal marriage form among the peoples of the world. Under the simple levirate the marriage occurs only after the death of the husband, when the widow is inherited by the dead man's brother. In the case of the *junior levirate*, only a younger brother may be the inheritor. This handy practice occurs in all parts of the world among peoples of the most diverse levels of cultural development. The rude Australians made it a rule; the Biblical Hebrews approved of it; and the civilized Incas provided for the inheritance of all a man's secondary wives by his younger brother, or perhaps his sons. An Inca first wife never remarried. She was supported by the state, if necessary, with a widow's pension proffered by an effective social-security system.

²¹ F. Barth, "Father's Brother's Daughter Marriage in Kurdistan" (*Southwestern Journal of Anthropology*, Vol. 10, 1954), pp. 164-171.

Whether the young man who finds himself with his brother's widow on his hands likes it or not depends partly on personalities, but also on cultural determinants. The Comanche inheritor of a widow was apt to look on this inheritance as a right and a privilege, especially since the widow might not marry another man without that person's obtaining a quitclaim from the heir. And that required a consideration—a horse or two, or perhaps some blankets. In other cases there is no element of choice for the collateral heir. The woman is his, willy-nilly. Her family has a claim on him as much as he has a claim on her. His family also has a voice, as in the case of a Shoshone Indian, who in 1933 was forced to divorce the wife of his own choice in order to marry his dead brother's wife. His people wanted to keep the girl in the family, and the laws of Idaho do not permit a man to have two wives.

The purpose of the levirate is not hard to discern. It effects a continuation of the link between the two kin groups that was established through the original marriage. It is a manifestation of the intergroup character of marriage in that the defunct husband's kin have the privilege and right to prevent the widow from leaving their group. Her obligation is not alone to the man she married but also to his kin. Of equally great importance, in view of the fact that in primitive society the children usually follow the mother when a home is broken, the children are not lost to the father's group. On the other hand, the claims of the widow's kin upon the group of the defunct husband are maintained in the substitution of a brother. The situation is one of balanced reciprocity.

Anticipatory Levirate. Fraternal polyandry occurred among some of the Shoshone tribes of the Nevada desert.²² The Seed Eater Shoshones of the Snake River Desert of Idaho and their close relatives, the Comanches, did not go so far as that, but they did come close to it in the practice of *anticipatory levirate*.²³ With the thought in mind that each may someday inherit the other's wife, a married man was wont to extend the sexual favors of his wife to an unmarried younger brother. And he expected reciprocity when his brother had a wife to share. A man always calls his brother's wife "wife," and again the implications of the kinship term are taken seriously. By this arrangement a brother simply enjoys the privileges of the levirate while his married brother is still living. A sort of attenuated fraternal polyandry results.

Sororate. As in the levirate a living brother takes the place of the dead father in a bereaved household, so in the sororate a sister is substituted

²² W. Z. Park, "Paviotso Polyandry" (*American Anthropologist*, Vol. 39, 1937), pp. 366-368.

²³ E. A. Hoebel, "Comanche and H3kandika Shoshone Relationship Systems" (*American Anthropologist*, Vol. 41, 1939), p. 447.

for the mother. Therefore, in the sororate a bereaved husband marries his deceased wife's sister. From the woman's angle, a girl marries her dead sister's husband.

The sororate goes hand in hand with the levirate; each is the complement of the other. It is observed by virtually every tribe of North America outside of the Pueblo area and is found widely distributed throughout the world.

The common mistake of confusing the sororate with *sororal polygyny* should be avoided. Under the true sororate a man is married to but one sister at a time. Under sororal polygyny he does not wait for the death of his wife to marry her younger sister; he takes her when she becomes of age.

Extended Affinal Marriages. Sometimes a sibling is not directly available within the immediate conjugal family for substitution for a defunct husband or wife. Nor may a cousin who stands in the brother or sister category be available or suitable for substitution. Then, in a few societies, a substitute from a higher or lower generation may be taken. This results in such peculiarities as marriage of a man to his wife's brother's daughter (or, from the standpoint of the girl, of a woman to her father's sister's husband) and of a woman to her husband's sister's son (or, from the standpoint of the boy, of a man to his mother's brother's wife). Wife's-brother's-daughter marriage is an extension of the sororate principle to another generation. Such extensions are limited to societies in which the unilateral principle of descent is strong, and each type of marriage is closely related to the kind of unilaterality that prevails.

Thus, in a patrilineal system, a girl automatically belongs to the same clan as her father's sister (her paternal aunt). She has the same clan identity as her aunt and her individuality is submerged in the corporate identity. She steps up to represent her unilateral group in the continuation of the marital alliance.

On the other hand, in a matrilineal system, a boy automatically belongs to the same clan as his mother's brother (his maternal uncle). He has the same clan identity as his uncle and his individuality is submerged in the corporate identity of the maternal kinship group. He steps forward to represent his unilateral group in the continuation of the marital alliance.

Marriage with extended affinal relatives is not common; only a small minority of societies find it worth bothering with or necessary to fall back upon. But in a strong unilateral system inclined to generalize the principle of clan identity, such marriages follow logically enough.²⁴

²⁴ See L. A. White, "A Problem in Kinship Terminology" (*American Anthropologist*, Vol. 41, 1939), pp. 569-570.

Filial Inheritance. Attention has already been called to the Inca practice of permitting a brother or a son to inherit the secondary wives of a dead man. Inheritance of the wives of his father, none of whom were his uterine mother, is also known to have been practiced by the Caribs of South America and by a number of African tribes. Filial inheritance is obviously possible only where there is polygamous marriage. It also serves to keep the women in the family.

KIN MARRIAGE

The primitive practice of marriage with cross-cousins has already been noted in the discussion of incest and its prohibition. Cross-cousin marriage is the most common form of a type of connubial union that we shall call *kin marriage*, marriage with a genetic relative. This type of marriage has been discussed in detail by Loeb and Toffelmier who call it "an incestuous marriage, because it involves the sexual union of persons related by blood ties."²⁵ This type of marriage is not actually incestuous, however, because marriage with relatives who are not looked upon as members of the kin group is not incestuous. A marriage is incestuous, it must be emphasized, *only* if it is forbidden on the grounds of real or putative relationship. In terms of social reality only those relatives are kin who are recognized as members of the kin group.

Marriage with a genetic relative who is not a member of the kin group is especially prized in many parts of the primitive world. The marriage may be not to any genetic relative, but only to particular relatives: notably, (1) cross-cousins, (2) mother's sister (or sister's son), (3) father's sister (or brother's son), (4) sister's daughter (or mother's brother), (5) sister's son's daughter (or father's mother's brother), an occasional Australian form. Types 2 to 4 are marriages between persons we would call uncle and niece, aunt and nephew. Type 5 would be a marriage between a grand-uncle and grandniece!

Marriage of cross-cousins is by no means a freak occurrence. It is the preferred union, a must among virtually all the tribes of North and Central Australia and a large part of Melanesia. Many people of Asia marry in accordance with its dictates, as did even those of ancient China. The Negroes of Africa follow the practice (except for the Sudanese). Polynesians, on the other hand, never took to the notion, except the natives of Tonga who have had close contact with the Melanesian Fijis. In aboriginal America cross-cousin marriage occurs in California, the Great Basin, and sporadically among Algonquians of the Northeast.

To some peoples it is a matter of indifference whether one marries a

²⁵ E. Loeb and G. Toffelmier, "Kin Marriage and Exogamy" (*Journal of General Psychology*, Vol. 20, 1939), p. 181.

cross-cousin related through one's father or one's mother. This is the case with the Dravidians of India, who are given to *symmetrical* cross-cousin marriage. In other societies such tolerance is lacking. It may be insisted that marriage be either on the mother's side or the father's. The Haida Indians of the Northwest Coast have a predilection in common with the Melanesian Trobriand Islanders, who permit marriage only with the father's sister's daughter. The Haidas' neighbors, the Tsimshian tribe, chose the other alternative, permitting marriage only with the mother's brother's daughter. The result is *asymmetrical* cross-cousin marriage: patrilateral in the first instance; matrilateral in the second.

Why cross-cousin marriage? Why should some societies practice the symmetrical, others the asymmetrical, form? The questions can usually be answered in terms of the specific kinship organization of particular tribes. The first question, however, is much more baffling. It is a *bête noir* of anthropology. Because of its great importance, it demands analysis but it refuses to yield a satisfactory general answer.

Nevertheless, one thing is clear. Cross-cousin marriage is linked to unilateral organization, even though it does appear among a few tribes who do not have clans.

When descent is analyzed in tribes possessing clan systems, it can readily be seen that parallel-cousins *may* be members of the same clan, but cross-cousins *can never be* (Fig. 16-2). It thus works out that parallel-cousins may be classified as brother and sister, between whom marriage is forbidden. Cross-cousins do not belong to the recognized kin group, are never called brother and sister, and are eligible as potential mates because they do not have the status of relatives. These circumstances make cross-cousin marriage possible but they do not explain why it should become a *preferred* marriage form.

Most of the plausible explanations of cross-cousin marriage that have been advanced by anthropologists apply to specific conditions as they exist in particular tribes or areas. Because what applies in one place does not apply in another, Professor Lowie has expressed the cautious opinion that "cross-cousin marriage is in all probability not a phenomenon that has evolved from a single cause but one that has independently risen in several centers from diverse motives." Lowie's observation is undoubtedly true if the investigator is considering the diverse manifestations of cross-cousin marriage in different societies in different places.

Perhaps the most significant reason of all is that cross-cousin marriage provides a means of stabilizing social relations between kinship groups within a society by establishment of consistently recurring links between related groups in ways that have been systematically and brilliantly examined by the French anthropologist, Prof. Claude Levi-Strauss.²⁶ Kin

²⁶ C. Levi-Strauss, *Les Structures Élémentaires de la Parenté*.

marriage works to enhance social solidarity and preservation of the cultural traditions of the in-group.²⁷

SUMMARY

The stabilization of sex relations is one of the most basic imperatives in the formation of cultures. Man is endowed with strong sex drives and is not instinctively monogamous. Because infancy is prolonged through so many years among human beings, the successful survival of the group requires that adult males and females organize in cooperative groups to tend and train the dependent young. Marriage is designed to effect this end.

Most primitive social systems do not punish premarital sexual activity, although there are special inhibitions in some instances. The incest tabu, a prohibition of mating among relatives who belong to the socially effective kinship group, is universal. Exogamy is merely the positive aspect of this negative rule. All cultures also include norms of preferential mating. Marriages with in-laws are means of reinforcing the marital alliance between two kinship groups or of continuing it, if a spouse should die; such affinal marriages find expression in the levirate, sororate, wife's-brother's-daughter and husband's-sister's-son marriages. Cross-cousin preferred marriages unite closely related relatives who are not members of the same kinship group. Father's-brother's-daughter marriages among the Arabic tribes unite members of the same patrilineage in an exceptional effort to maintain the strength of the fighting lineage in a highly segmented type of society.

No human society leaves the search for sexual mates to sheer whim or chance. Each lays down definite rules identifying the forbidden and the preferred mates.

SELECTED READINGS

- Lowie, R. H.: *Primitive Society*, Chapter 2, entitled "Marriage." Concise and comprehensive.
- Murdock, G. P.: *Social Structure*, Chapters 7 and 11, entitled "Determinants of Kinship Terminology" and "Social Law of Sexual Choice." Correlates marriage forms with other aspects of social organization; the most up-to-date examination of the problem. The last chapter offers a comprehensive theory of selective mating.
- ter Haar, B.: *Adat Law in Indonesia*, Chapter 9, entitled "Marriage Law." Gives a straightforward exposition of basic marriage forms as they occur in Indonesia.

²⁷ Cf. Murdock, *op. cit.*, Chap. 11, "The Law of Sexual Choice."

CHAPTER 17. Marriage

THE BASIC purpose of marriage is to stabilize mating. Infancy among human beings is long drawn out. The absolute dependency of children upon adults for sheer physical survival endures for eight to ten years at the very least. Yet even a longer period of training and development is required before the child has acquired the minimum of skills and knowledge to make him a sufficient adult in any society. For those who are going to play the more specialized roles in an advanced society, infancy is extended through a full third of modern life expectation. It has been written that "college prolongs infancy." Even without sarcasm this is true. Training in the specialized aspects of our culture is so complex that those who go to colleges to receive it are not ready to begin their roles as adults until twenty or more years of life are past.

The continuance of a society and its culture require that some man and woman, or group of men and women, be fixed with the responsibility of providing the necessary care and training without which children perish or fail to acquire the cultural techniques and values to which their society holds. E. W. Burgess, long an expert and scientific student of the family, believes that the fact of paramount significance for our understanding of the family is that "the sexual impulse in itself is not sufficient to insure more than the casual union of the sexes."¹ Anthropological and biological evidence concur in this conclusion.² Marriage fixes responsibility. Put another way, the function of marriage is to make the world safe for the family. As was observed in the last chapter, marriage is the institution that defines the interpersonal relationships that determine the form and pattern of the mating pair in the association we know as the family. Marriage is, therefore, a culture complex.

In this chapter attention will be devoted to the ways in which primitive peoples enter into marriage, and how they may get out of it, if that

¹ E. W. Burgess, "Introduction" in *The Negro Family in the United States*, p. xi.

² Cf. W. LaBarre, *The Human Animal*, especially Chaps. 6 and 7, for a convincing discussion of the details.

is permissible. In the next chapter, we shall look into the forms the family assumes and the special functions it fulfills.

PROGENY PRICE

In the primitive world the formal exchange of goods of value for the offspring a woman is expected to produce is the normal, or most usual, method of getting a wife. *Progeny price*, or *bride price* (as it was previously called), was found to prevail in 303 of the 434 tribes that were statistically sampled by the English anthropologists Hobhouse, Wheeler, and Ginsberg.³ Professor Murdock's more carefully selected sample revealed the paying of progeny price as occurring in exactly half the cultures.⁴ It is the common thing in Africa;⁵ it is the regular practice among the patrilineal tribes of Indonesia; and it occurs in one form or another in all other parts of the world.

It must not be assumed that the payment of progeny price for a woman means that women are degraded slaves to be sold from the auction block of a marriage mart—a sordid commercial commodity. A commercial element necessarily colors the institution, for, after all, a family with five daughters and one son for whom a bride must be acquired, is economically better off than the family with one daughter and five sons to be provided for. But women are not fluid goods in a free market.

Nor does the occurrence of progeny price mean that the position of woman in terms of prestige, privilege, power, and labor is necessarily high or low. It does mean, however, that women as progenitors have value as members of the kinship group. The value of a woman in terms of progeny price is determined by a compound of the social and economic status of the groom's family balanced against the bride's. In some instances the personal qualities of the bride and groom may also be factors, although in theory they should not.

The social prestige of a married woman is directly influenced by the amount of the progeny price that has been paid on her account. A twenty-cow wife in East Africa has a definite forensic advantage in any argument with a woman on whose account but ten cows have been given. Among the Yuroks of California this is so fixed that the social status and wergild of a man are determined absolutely by the progeny price paid for his mother.

³ L. T. Hobhouse, G. C. Wheeler, and M. Ginsberg, *The Material Culture and Social Institutions of the Simpler Peoples*.

⁴ G. P. Murdock, *Social Structure*, p. 20.

⁵ The Native Administration Act of 1927, Union of South Africa, in recognition of the importance of progeny price in native society, expressly forbids any court from setting aside *lobola* or *bogadi* as "repugnant to natural law." J. Lewin, *Studies in African Native Law*, p. 57.

A number of factors underlie progeny price, but the basic principle is the collectivity of the kin group. In no society does the person stand alone as an individual. This is particularly true in primitive societies where status as a member of a group of kinsmen is the primary determinant of the individual's social position.

In spite of what aspirant youth may feel about it, marriage is not a concern of the marrying pair alone. Society at large has its stake in the affair and what ensues from it. The families of the principals to a marriage have their very direct interests in its many ramifications.

To understand marriage at all, and primitive marriage especially, it is necessary to grasp this basic principle: *marriage constitutes an alliance between two kin groups in which the couple concerned is merely the most conspicuous link*. Everyone learns, sooner or later, if he does not know it now, that when he marries the "one and only" he marries not only her but all her relatives as well. Brides, of course, have the same experience.

The kin-group alliance is shaped as a kind of implicit contract. Tangible evidence of the contract helps to solidify it. Symbolic gestures such as marriage feasts and rituals serve this function well. This is also the effect of gift exchange at marriage. When gift exchanges are customarily equal, no one comes out ahead. This is the case with the Cheyenne Indians. A boy who has set his heart on a particular girl talks it over with his family. If they think the choice is a good one, after taking into consideration not only the qualities of the girl but also the character of her family, they muster their nicest transferable possessions to place at the disposal of the young swain. These are carefully loaded on a fine horse. They then call upon a respected old woman to lead the horse to the tipi of the girl's elder brother. There she stakes it out for all the camp to see, while she enters the lodge to press the suit of her protégé. The elder brother calls in his cousins for a family conclave. If they decide the proposal is acceptable, they unload the horse and distribute the gifts among themselves, the brother taking the horse. All then disperse to their separate lodges to rustle up what each will offer as a return gift. Each is expected to bring back in the next day or two something equal in value to what he has received. In the meantime, the bride is made beautiful, and when all is ready she is mounted on a good horse, the presents are loaded on another, and the old woman is called upon to lead the bride and the gift horse back to the groom's tipi. There she is received by all his family, and her accompanying gifts are distributed among them in accordance with what they gave. So far as economic value goes they are exactly where they were before. What then has been gained?

Perhaps we can understand the social function of such activity better if we reflect on our own elaborate gift exchanges at Christmas time. The

energy, trouble, and effort in acquiring and distributing suitable gifts is immense and often discouraging. As often as not, we end up with a collection of items we would just as soon do without. Nevertheless, in the exchange we reaffirm and bind anew the friendships and relationships we value or find desirable.

The line between gift and purchase is gossamer thin. So, on occasion, is the line between gift and bribe. In either case, the differences lie in the attitude of the giver and receiver and the tone of the situation as it is customarily felt in the community. This makes it sometimes difficult to determine whether the social practice in a given tribe is progeny purchase or merely gift. When a Comanche gives arrows or a horse to a girl's elder brother in preparation for a marriage proposal, it probably is to be considered as a gift, since the elder brother is not obligated to release his sister in exchange. Yet a man knows what the other has in mind when he gives these gifts, and acceptance does impose a measure of claim upon his sister. In this sense, the gift is a purchase price.

Since gift giving as a smoother-of-the-way is apparently a universal practice, it is probable that gift giving as a step in marriage exists as a weak form of progeny price in most societies in which the overtures are made by the men.

The transference of progeny price from the kin of the groom to those of the bride is a stepping up of gift exchange to obligatory compensation. Compensation for what? Some tribes say it is to recompense the parents of the bride for the trouble they went to in raising her. Others simply say that the parents have something the groom wants; therefore he must pay to get it. These views express a native rationalization for a custom, but hardly explain it. Progeny price may be in part compensation for the loss of the girl by her kinship group, but it is much more an act of compensation to that group for its loss of a legal claim to the children that she will bear. Two facts make this clear. The transference of progeny price is closely correlated with patrilineal descent systems and virilocal residence. Again referring to Murdock's comparative data, we learn that of 121 societies demanding progeny price all but 18 are virilocal! Of the 18 nonvirilocal societies only four are uxrilocal.⁶ Clearly, the loss of her children from the residential seat of her kin is a factor that must be balanced by reciprocal payment of other items of value. But beyond this, there is the circumstance that virilocal residence tends strongly to generate patrilineality. Although the wife does not become a member of her husband's unilateral group, her children do. In patrilineal societies, therefore, each marriage of a woman means that her lineage suffers a loss of all the progeny that may be born through her. For this great sacrifice they

⁶ Murdock, *op. cit.*, p. 20.

expect and receive redress. That it is in exchange for a quitclaim, so to speak, on posterity rather than for the bride herself that the progeny price is demanded may more clearly be seen in the fact that an implicit warranty of the fertility of the bride resides in the transaction. It is therefore common expectancy among African Negroes that the bride's family must substitute a younger sister without charge if no issue is forthcoming from the first daughter for whom they have received progeny price. As an alternative, the sum of the progeny price must be refunded. This is often difficult, however, because the capital received in payment for the daughter may already have been invested in the purchase of a wife for a son. Thus, it has been reported (for the Thonga, for instance) that the family may be required to surrender their son's wife to their son-in-law in lieu of their barren daughter. These same requirements hold if the married daughter deserts her husband, who has paid for her.

Linton's report on the Vezo Sakalava of Madagascar shows to what extent progeny price is actually the establishment of a right to children among these people. In the case of divorce, neither a refund of the cattle paid nor the substitution of another woman is socially permissible. The divorced wife may remarry, but only with her former husband's permission. This will be forthcoming upon agreement by the wife and her new husband-to-be that the first children born to them (up to the limit of three) will be deeded over to the first husband, who is the one who paid the progeny price to her family. The woman nurses and keeps the children until weaning, whereupon they are turned over to her first husband and become his legal heirs without the formality of adoption.⁷ All this illustrates another basic principle to be referred to in more detail later on, viz.: *among primitives sociological fatherhood is generally of more significance than biological fatherhood.*

A nice Sakalava refinement is that although legally a divorced husband may demand a refund, good form does not countenance it. That would be putting material values above human values! Such a man puts cattle above children.

Finally, among the Bavenda of South Africa and other tribes, if the progeny price is paid in installments, the children do not pass to the husband's kin group until the sum is paid in full.

An interesting twist to progeny price as a means of obtaining offspring is found among the Dahomeans of West Africa. Here a married woman may arrange for a second wife for her husband as a means of providing him with children. These children call their sire's first wife "father," be-

⁷ R. Linton, "The Tanala" (*Field Museum of Natural History, Anthropological Series*, Vol. 22, 1933). For numerous like examples from Africa, see M. D. W. Jeffrys, "Lobola is Child-Price" (*African Studies*, Vol. 10, 1951), pp. 145-184.

cause she, after all, is the one who paid for them.⁸ This may seem to be carrying the principle of sociological fatherhood a bit far, but who can deny that it is logical? In one form or another, this practice is not uncommon among the patrilineal tribes of Africa.

Progeny price as a social institution cannot be comprehended unless it is viewed also in its functional effects in cementing the links in the web of kinship that makes possible the expansion of the scope of society. Social groups are often in opposition to one another, disputing, quarreling, even feuding and fighting. Intermarriage imposes a check on the disruptive tendencies of intergroup conflict. Marriage alone tends to exert a tranquilizing effect in this direction, but it takes more than marriage in and of itself adequately to achieve cohesion. Progeny price involves a number of kinsmen in a network of economic obligations and expectancies. Many more than just the husband, on the one side, and the bride's parents, on the other, are drawn into the activity.

Among the Nuer, a Negro tribe of cattle raisers living on the upper reaches of the White Nile, each marriage ideally calls for the transfer of forty head of cattle. Of these, twenty go to members of the bride's primary composite family, ten to her father's primary composite family, and ten to that of her mother. The distribution is as follows (see Fig. 17-1):
 ✓ A. *Primary family of the bride.* To the bride's father (a) eight head, specified as three cows and their calves and two oxen; to her brother born of another mother (b) two cows; to her brother born of the same

⁸ M. J. Herskovits, "A Note on 'Woman Marriage' in Dahomey" (*Africa*, Vol. 10, 1937), pp. 335-341. The term for *father*, incidentally, in its more exact meaning, should be understood as "person who paid progeny price."

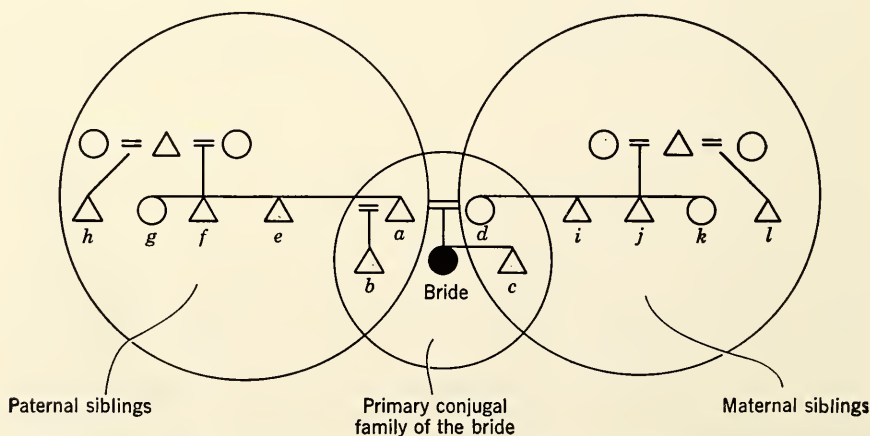


Fig. 17-1. Identification of relatives in Nuer progeny price distribution.

mother (c) two oxen, three cows, a cow and its calf: seven head all told; to her mother (d) a cow and a calf, and a heifer.

B. *Siblings of the bride's father.* To the bride's father's elder brother by the same mother (e), a cow and its calf, a calf, and an ox (four head); to the bride's father's younger brother by the same mother (f), a cow and an ox; to the bride's father's sister (g), one heifer; to the bride's father's brother by a different mother (h), a cow and its calf, plus an ox.

C. *Siblings of the bride's mother.* To the bride's mother's elder brother by the same mother (i), a cow and its calf, a cow, and an ox; to the bride's mother's younger brother by the same mother (j), a cow and its calf; to the bride's mother's sister (k), one heifer; to a brother of the bride's mother through a different mother (l), a cow and its calf, and an ox.⁹

In addition to these specific rights to cattle, every patrilineal relative of the bride, even though the relationship be so remote as that of descent from a common ancestor six or seven generations back, may claim a small gift from the groom's kinsmen. Special symbolic gifts of cattle may be called for in the name of ancestral spirits of the bride, of her "father's best friend, of an age classmate of her father, of her father's fireplace, and to the priest who performs magic rituals for enhancement of the bride's fecundity."

All this should make it very clear how much more than just a commercial transaction the transfer of progeny price is.

Suitor Service. A cheap but not easy way to obtain a wife and rights to her children is to work for them. Jacob put in seven years of labor to win the hand of Rachel, plus seven for Leah, who was not part of his bargain. Among the Siberian Chukchi, Koryak, and Yukaghir tribes, service for the bride is the regular practice; it seems to have replaced progeny price as the earlier form of acquisition of a wife.

Scattered tribes in all parts of the world have been found to require service in the bride's household as the price the groom must pay (30 out of 241 cultures).¹⁰ Suitor service is almost nonexistent in virilocal cultures and is most common in those in which the groom must serve out his time in his bride's home, after which he may take her back to his own locality. Many of these tribes allow no alternative, but in others suitor service is simply a substitute for payment of the progeny price—like the vagrant who washes dishes in the kitchen to pay for his meal.

The obligation of a son-in-law to work for his wife's parents may be an enduring responsibility. Although the Comanche Indians do not re-

⁹ These figures represent the ideal norm among the Eastern Nuer as reported by Professor Evans-Pritchard, "Nuer Bride-wealth" (*Africa*, Vol. 16, 1946), p. 4. In the real culture they vary by circumstance and district within the tribe. Cf. P. P. Howell, *A Manual of Nuer Law*, pp. 101-124.

¹⁰ Murdock, *op. cit.*, p. 20.

quire outright suitor service, a son-in-law is expected to send a good share of the game he slays to the tipi of his mother-in-law. This is why parents want their daughter to marry a good hunter. A son-in-law does not have to do this; but if he does, he is a good son-in-law, and a poor son-in-law if he does not. His reward will be a younger daughter to become his second wife. But no meat, no second daughter.

Exchange Marriage. Another inexpensive way to get a bride is to swap sisters. This results in a form known as *interfamilial exchange marriage*. In this arrangement a brother and a sister are married to a sister and her brother, and a man's wife's brother is also his sister's husband—a two-way brother-in-law. Since both the families come out even, there is no need for either progeny price or suitor service, although gift exchanges are still allowed.

It would seem at first blush as though this double-barreled method of joining kin groups would have strong appeal and wide cultural adoption. Nonetheless, it is quite rare.

The difficulty with this practice is that it is not as easy to make a double match as it is a single one. The Shoshone Indians of the Snake River Desert in Idaho prefer this form of marriage to all others, and their whole system of kinship terminology is predicated upon it.¹¹ Yet in recent times, at least, such marriages have been in actuality few and far between.

MARRIAGE BY CAPTURE

Novelists and romanticists dwell on the hoary days when the cave man was supposed to beat his beloved into insensibility with a knobby club, then to drag her by her flowing hair to his lair where she forthwith became his loving wife. This is the wishful notion of the "get 'em young, treat 'em rough, and tell 'em nothing" school. When anthropology was young, serious consideration was given to this fantasy as the earliest method of getting a wife. Indeed, marriage by capture was the first premise underlying the theory of social evolution put forth by the Scottish anthropologist, J. F. McLennan, a hundred years ago.¹² Suitors' trials and sham battles at marriage were thought to be symbolic survivals of the scuffles that accompanied the abduction of the feminine prize.

Mock capture is a real and not uncommon practice. When a young Bushman and his bride are to be married the folk gather from all around to join in the wedding feast. In the midst of the meal the groom seizes the bride. This is the signal for all her relatives to grab their dibbles and

¹¹ Cf. E. A. Hoebel, "Comanche and H3kandika Shoshone Relationship Systems" (*American Anthropologist*, Vol. 41, 1939), pp. 440-457.

¹² J. F. McLennan, *Primitive Marriage*.



Fig. 17-2. A Solomon Island marriage ceremony. (Douglas L. Oliver.)

set to beating him. A minor battle royal takes place among the guests while the groom receives his drubbing. If he can keep his hold on the girl, the boy succeeds in his marriage. If he lets go under the hail of blows, he loses her.¹³

The African Bahima subject the bride to a tug of war between her clan and the groom's, which always wins. When the final pull is given in the groom's favor, the bride is hustled to a cowhide and raised from the ground by the groom's cohorts, who rush off with her, chased by friends and relatives.¹⁴

Of course, the hilarious horseplay that climaxes our own weddings and the escape of the bride and groom in a cloud of exhaust smoke (provided a spark plug has not been removed), are cut of the same cloth.

If this is not a survival of bride capture, what then is it? Modern anthropology prefers a functional to a pseudohistorical explanation. More properly, it is to be understood as a symbolic expression of latent and repressed hostilities of the two marrying families. True, they are to be allied in marriage. But alliance is only possible where differences exist. Alliance always involves a measure of antagonistic cooperation. Common interests dominate any alliance or it will not be forged. Yet the antagonisms are there to be felt, unconsciously or otherwise. The bride-giving family resents the successful intrusion of the suitor, and they are given

¹³ G. W. Stow, *The Native Races of South Africa*, p. 96.

¹⁴ J. Roscoe, *The Northern Bantu*, Vol. 2, p. 256.

the ritual opportunity of letting him know it in a harmless way. Thus are the deep emotions of resentment drawn off. Likewise, any feeling that the swain is unworthy of the precious daughter may be met by forcing him to prove his worth.

All this is not to contend that marriage by capture does not exist. It does. But we must dispel the notion that it could ever have been *the* prevailing technique in any supposed stage of human history. Rather, it is a supplementary way of getting a wife. Its advantage is that it is cheap and adventuresome, if risky. On the other hand, its disadvantages, aside from risk, are heavy. Since marriage is an alliance between kin groups, capturing a wife brings none of the advantages that are to be derived from such an alliance. There are no wife's relatives to back a man up or contribute their share of property. The man who captures his wives will, therefore, be at a disadvantage as against the man who has got his by reciprocal means. His children will not have the advantages and status his wife's family might bestow, and if his sole wife is from an alien tribe, his children will not be raised in the pure tradition of his own culture.

Plains Indian warriors, like the men of many another primitive tribe, did capture and mate with alien women. Many are the nations who have considered women the legitimate prize of war. However, unless a man is poorly off, he first marries a girl of his own tribe in the regular manner. His captured wives are secondary additions to his household: his concubines and his wife's household drudges. Here, as elsewhere, the position of the captive woman may be closer to that of a slave than of a true wife.

Again and again, we find that the abduction of women is the cause of bitter wars and annihilations. Helen of Troy may be the most famous such *bella causus belli*, but she was neither the first nor the last among her sex.

INHERITANCE OF WIVES

Inheritance of widows through the operation of the levirate and filial inheritance is of course of extreme importance as a form of marriage. However, nothing further need be added here to what we have already said in the previous chapter on this subject except to note that the Palvic and Bura tribes of northern Nigeria allow a man to inherit his grandfather's wives.

ADOPTIVE MARRIAGE

In Indonesia and modern Japan a man may obtain a wife by being adopted into her family.¹⁵ It is a device by which a patrilineally organ-

¹⁵ ter Haar, *op. cit.*, pp. 175-176; J. F. Embree, *The Japanese Nation*, p. 162.

ized family may maintain its line when there are no sons. By legal fiction the son-in-law thus becomes a "son" in his wife's family, and his children belong to her family and not his. A queer quirk of this device is the fact that technically the groom's bride becomes his own "sister." It is necessary that the people close their eyes to this bit of logic, for that, of course, would be incest. Convenience masters logic and the husband is a "son" of his father-in-law for purposes of reckoning descent.

Fictive Marriage. Adoptive marriage is a form of fictive marriage in that it is assumed that the son-in-law is a son. More extreme forms of fictive marriage occasionally occur. Among them are the special practices of the Kwakiutl and the Nuer. In the case of the Kwakiutl the inheritance of chiefly prerogatives passes from a titled man to his grandson through his son-in-law, the grandson's father. It is not possible for the titles to pass to succeeding generations through the chief's sons directly. If there are no daughters, such inheritance would be blocked for lack of a son-in-law were it not for fictive marriage.

In such a case [writes Boas], a man who desires to acquire the use of a crest and the other privileges connected with the name performs a sham marriage with the son of the bearer of the name. The ceremony is performed in the same manner as a real marriage. In case the bearer of the name has no children at all, a sham marriage with a part of his body is performed, with his right or left side, a leg or an arm, and the privileges are conveyed in the same manner as in the case of a real marriage.¹⁶

The son-in-law begets children by a second wife.

We have already seen how strong are the ties of kinship among the Nuer as expressed in progeny price exchanges. So important is the maintenance of lineage inheritance that the Nuers often rely on what they call *ghost marriage* to give offspring to a male, man or boy, who has died without begetting heirs. For it is necessary to "keep green" the name of a man whose position in the lineage structure is important. In such an instance one of his "brothers" (from a kinship status that is overstocked or less important) marries a woman on behalf of the dead man, or as they say, "to the name of his brother." This man lives with the woman as in any ordinary conjugal family except that *he* is not married to her. The children that he begets take their place in the lineage as the offspring of their ghost father; they inherit accordingly and receive and give progeny price and wergild in like manner.

The Nuer also have a form of "wife marriage" that differs from that already noted for Dahomey. Among the Nuer a woman who is beyond the childbearing age may sometimes use the cattle that belonged to her dead husband to set up a marriage between a man and woman in the

¹⁶ F. Boas, *Social Organization and Secret Societies of the Kwakiutl Indians* (United States National Museum, Report, 1895), p. 359.

name of her husband and herself. The children of such a marriage then belong to her deceased husband and herself, and they inherit accordingly.

In another Nuer variant, an old woman, whose lineage is about to die out because she has no living paternal relatives, may, if she has the requisite cattle for the progeny price, marry a woman to the name of a dead man of her lineage. Then she invites some unrelated male to have intercourse with the "ghost bride," thus legally establishing a line of heirs.

Pushing the use of fiction to its ultimate, the Nuer give a barren woman the status of a male. After all, has she not demonstrated that she is lacking in the essential attribute of the female? In exceptional cases, then, a wife may be married to her name. That is, a marriage between a man and woman is arranged in which the *man* is the legal substitute for the barren woman in question. The children belong to her name, which means, because she is accorded the status of a male, that they take their patrilineal descent from her, so closing a link in the patrilineal lineage!¹⁷

ELOPEMENT

Elopement is a safety valve. It is one of those saving cultural forms whose function is to provide an acceptable byroad wherewith to escape the dictates of formal custom. Marriage, as we have seen, is never left open to the untrammelled choice of the marrying individuals. There are incest and exogamic prohibitions; there are the limitations of preferential mating; and there are the personal prejudices of family members to be met. On the other hand, there is love. Few people are so given to romantic love as are Americans. In our individualistic sentimentalism we exalt the ideal of marriage based on love—that mysterious psychophysiological reaction. Although many primitive cultures do not allow very much weight to love in marriage (indeed, many seem to ignore it entirely), the fact is that all primitives have their amorous likes and aversions too.

From the evidence it would appear that elopements take place in every known society. When familial or social disapproval blocks a fervently desired marriage, or when a planned marriage with a distasteful partner is about to be forced on the unwilling one, elopement is a way out. The tribes that require that elders and relatives seek the consent of marriageable youths to the arrangements they plan for them are surely a minority among mankind. This makes a general human necessity of the path of elopement.

Of course, the existence of a formal rule does not mean that it will always be insisted upon. Cheyenne men hold the legal right to dispose of

¹⁷ Howell, *op. cit.*, pp. 74-75.

their sisters as they wish. But as Calf Woman put it, "Kind-hearted brothers always found out how their sisters felt about it before they promised them to any man."

It is difficult to formulate a generalization concerning the status of elopement marriages. In the case of the Cheyennes the elopement would ultimately be recognized as a marriage and be validated by gift exchanges only if the pair ran off before the girl had actually been engaged by her brother to another man. It was a different matter if the promise had already been made. In several Cheyenne cases brothers committed suicide when their sisters eloped after they had been promised to someone else.¹⁸

In parts of the Pacific area the tendency to *cultural orthogenesis* has resulted in elopement becoming the *regular* way of getting married. This is the situation in a number of Australian tribes. According to the reports of Howitt,¹⁹ elopement is the *reductio ad absurdum* of overdeveloped marriage rules among the Kurnai tribe. Broad rules of exogamy combine with narrow rules of localized mating (i.e., the mate must be taken from a specific band) to narrow strictly the field of legitimate choice. Old men dominate the society and have the first choice of young girls. Matters are so carefully controlled that a boy can scarcely find a girl he can rightly marry. Fortunately for the Kurnai, they make "pretend rules" of these principles. Most marriages of young couples are by elopement, and customarily medicine men are expected to help them escape. What then? The righteous citizenry (most of whom married in just this way) are terrible in their anger. A posse of vigilantes sets forth to do social justice. The couple flees to a traditional asylum. If they are overtaken, they are cruelly wounded and may be killed. Once at the place of asylum, however, they are safe. They stay there until a baby is born. Then they may return home to face a softer music, for they will merely be given a beating and then be accepted as legitimately married.

DIVORCE AND THE DISSOLUTION OF MARRIAGE

In spite of the desire of kinsmen to retain the marriage link, primitive marriages are brittle things. Romance and individual desire may not play so great a role in determining the choice of a first partner as it does with us, but they are permitted more sway in the shifting of mates after marriage. Only a small proportion of marriages among primitives are for life.

Hobhouse, Wheeler, and Ginsberg found in their study that of 271 tribes only 4 per cent forbid divorce; 24 per cent allow it for specific cause; 72 per cent permit it on the basis of mutual consent based on in-

¹⁸ K. N. Llewellyn and E. A. Hoebel, *The Cheyenne Way*, Chap. 9.

¹⁹ A. W. Howitt, *The Native Tribes of South-east Australia*, pp. 273ff.

compatibility or whim.²⁰ The sample may not be statistically perfect. Nevertheless, the results just quoted are probably not too far from accurate fact.

Aside from the economic arrangements that may have to be untangled where a high progeny price was paid or a rich dowry given, divorce does not entail such difficulties among the primitives as it does with us. The first reason rests in the fact that although religious ritual may enter into the marriage ceremonies, marriage is hardly a religious affair. In addition, the problem of the care and disposition of the children is more easily handled. Ordinarily, they go with the mother. It has already been noted that sociological fatherhood is more significant to primitive man than is biological paternity.

There is little evidence on record to indicate that when the primitive mother remarries the emotional transition for the children is difficult. If the mother does not remarry right away, it is easy for her and her brood to settle among her relatives, for the tribal community is small and she has not been far from her kin at any time. If she is a captive from an alien tribe, she probably remarries without delay. Unmarried adult women are unthinkable to most primitives.

The prevalence of wife stealing is another important unsettling factor. In societies in which sexual competition among the men is a means of attaining social status, no home is truly safe. Eskimos may cooperate economically, but they engage in violent competition for women. To steal another's wife and get away with it proves the abductor a better man than the loser. The risk is great, however, because the husband, if half a man, will attempt to murder the absconder. A would-be wife taker often anticipates this by killing the husband first and marrying the widow afterward.

In the 1920s Knut Rasmussen visited a village of Musk Ox Eskimos in Canada. He found that every adult male in the community had been involved in a murder centering about wife stealing!²¹

Special practices, such as the licenced wife stealing of the Crow Indians, may also break up the family. This is a phase of competition between two rival military associations, the Foxes and Knobby Sticks. Each spring one or another of the fraternities is privileged to capture any wife of a member of the other fraternity, provided she has had premarital sexual relations with the captor. The husband may not resist the abduction or take his wife back. The triumph of the kidnaping fraternity is supreme.

²⁰ Hobhouse, Wheeler, and Ginsberg, *op. cit.*, Chap. 3.

²¹ K. Rasmussen, *Across Arctic America*, p. 250.

After an abduction there was a ceremonial display of the captive women. The successful club would announce: "One of the Lumpwood (Fox) girls has married one of us Foxes (Lumpwoods) of her own accord!" They took her to the club lodge, where they kept up drumming, singing, and dancing most of the night. She was the only woman present. Her kidnaper's family treated her as a true bride, bringing her an elk-tooth dress and other garments. Early the following morning an old member went through camp, shouting: "We are going to have a good time today, get your horses and prepare for today's big dance!" The stolen woman dressed up in her new clothes, her face painted with red stripes, while the members painted as though for war. She was to ride behind a member who had once saved a Crow from a pursuing enemy, taking him up on horseback behind himself and thus earning the title of *akbapicere* (one who takes someone behind). Any other man presuming to ride with the woman was jeered and at once thrown off by the rival club. There were, in fact, further restrictions. The feat must have been achieved on the war-path, not while defending the camp against hostile attack, in which case the danger was not reckoned so great. Further, the horse mounted by the pair must be one cut loose from its picket in the enemy camp; otherwise the riders were thrown off, the bridle was torn, and the horse turned loose. The entire club paraded in regular formation, two abreast, with the leaders and rear-men in the van and rear, respectively; only the *akbapicere* and the woman remained outside the line. Similarly, they kept outside the circle formed by the society in the center of the camp, where the dancing commenced and continued until evening. The society losing the woman looked on ostentatiously during the performance with feigned indifference. At last the members of the triumphant club returned to the lodge, leaving the woman in her lover's custody.²²

Cheyennes and other Plains tribesmen considered it a great feat ceremonially to throw away wives at a special dance. The Cheyenne warrior tossed a stick among the male spectators and whoever was struck by it had to marry the woman, if only for a day.

Although in the earlier edition of this book it was stated, in accordance with the prevailing anthropological opinion, that in general men are allowed more leeway than are women in the matter of divorce, a special study by Professor Murdock invalidates this conclusion. Among forty objectively selected cultures from all parts of the world it was impossible in three-fourths of the sample for Murdock to detect any substantial difference in the rights of men and women to terminate an unsatisfactory marriage. Six cultures, it is true, stack the cards in favor of the men. But on the other hand, four cultures allow superior privileges to the women as regards divorce. In so far as the right to get divorced is concerned, Murdock concludes that, "the stereotype of the oppressed aboriginal woman

²² R. H. Lowie, *The Crow Indians*, pp. 190-191.

proved to be a complete myth.”²³ Matrilineal descent plus uxorilocal residence, of course, strengthen the hand of the woman. Among the highly matrilineal Hopi and Zuni, where women own the houses, a woman can divorce her husband simply by setting his gear outside the door. Any man who comes home to see his pile of belongings outside the door knows just what that means. It is time to go home to mother.

The causes of divorce and the grounds for it may be two quite different things. Yet it may be illuminating to close this chapter with a listing of what the Ifugao of northern Luzon consider as grounds for divorcement:

1. A bad omen of the bile sac of the sacrificial animal at any one of the four feasts of the marriage ritual

2. A bad omen of the bile sac at any of the three principal rice feasts of either family during the first year after the completion of the marriage rituals

3. Barrenness

4. Continuous dying of offspring

5. Permanent sexual disability

6. Unwillingness to perform the sexual act

7. Neglect in time of sickness, “failure to cherish”

8. Insulting language by an in-law

9. Reduction of the area of fields agreed on in the marriage contract

10. Selling of a rice field for insufficient reason and without consent of the other spouse

11. Continued refusal of a father-in-law to deliver the fields called for in the marriage contract when the couple reaches a reasonable age

12. Incurring of unreasonable debts

SUMMARY

Marriage as an institution is universal. It defines relations between marrying couples and their respective kin groups, and in primitive societies the group alliance is more important than the husband to wife relationship itself. Progeny price is one important manifestation of this fact. Marriage by capture is relatively unimportant, for the very reason that by its nature it brings none of the advantages that are to be derived from the kinship alliances of ordinary marriages.

Fictive marriages are peculiar practices which are, however, understandable as devices for preserving some principle of inheritance or succession. Elopement and divorce are cultural expressions of the individualistic spirit in conflict with the institutions of kinship.

²³ G. P. Murdock, “Family Stability in Non-European Cultures” (*The Annals of the American Academy of Political and Social Science*, Vol. 272, 1948), pp. 195–201.

SELECTED READINGS

- Evans-Pritchard, E. E.: *Kinship and Marriage Among the Nuer*. An authoritative study based upon detailed knowledge of a tribe of cattle raisers in the African Sudan.
- Radcliffe-Brown, A. R., and D. Forde (eds.): *African Systems of Kinship and Marriage*. Synoptic analyses of nine African marriage and kinship systems.
- Schapera, I.: *Married Life in a South African Tribe*. Old ways and the new in the contemporary setting of South Africa.
- Westermarck, E.: *The History of Human Marriage*. Although the theoretical system of this work has been long since outdated, it contains a wealth of very useful descriptive material on marriage practices around the world.

CHAPTER 18. The Family

THE family is the most fundamental of all social groups, and it is universal in its distribution. As in all culturally determined social forms, however, there is a certain amount of variability in the types of family structure and functions, some of which will be examined in this chapter.

THE CONJUGAL FAMILY

The conjugal family, consisting of married spouses and their offspring, performs at least four basic functions: (1) the institutionalization of mating with its attendant controls over sexual outlet; (2) cooperative division of labor between male and female; (3) nurture of the young in an atmosphere of intimacy; (4) basic enculturation of the oncoming generation. These



Fig. 18-1. The conjugal family as a social unit. Bushman family. (*Peabody Museum, Harvard University.*)

functions are universally performed by the family as a social unit. Other social arrangements may exist wherein these functions are also performed, but they are always ancillary to the family. And above all, they are not universal, whereas the family is.

In many societies the sex drive may be legitimately satisfied prior to marriage; in such cases there would be no reason for the individual to take on the responsibilities of marriage if sex gratification alone were a function of the family.

Care of the infant and childhood generation is the matter of major concern. The rather casual interest of primitives in the question of biological fatherhood has already been sufficiently emphasized. But that some man or group of men must be tagged with the responsibility of providing the adult male activities necessary to keeping the young ones alive, growing, and learning is universally recognized as of the utmost importance. Sociological fatherhood there must be, in the very least. In meeting the requirements of infant care and child development, the sex differences of male and female are such that a cooperative division of labor makes for greater efficiency and skill in the work that is to be done. Childbearing obviously must be done by women, for, as Prof. Ralph Linton has wryly observed, "I have never heard of a society yet in which the males were capable of parturition." Nursing ties women down, while men have greater freedom of movement. Mobility, combined with greater strength, inevitably allows men to become more efficient hunters. Many skills can be performed equally well by either sex, but in so far as practice makes perfect, each sex is more likely to develop high skills if it concentrates on certain tasks and relies on the opposite sex to do likewise with others, so that each spouse and the children all harvest greater benefits from such an arrangement.

The basic functions of the family may be performed with varying degrees of effectiveness from culture to culture, and the details of the ways in which families within different culture systems carry out these functions produce remarkably differing results in the individual personalities of children and adults, as will be shown in the chapter on "Personality and Culture." At this juncture, the most relevant fact is that there is evidently no substitute that equals the family in serving the functions of child development. The anthropologists who have paid especial attention to the relations of culture to personality formation by means of direct observation of primitive societies agree that anthropological data give universal significance to the conclusions drawn from recent studies of children in institutions. Margaret Mead sums it up,

It has been . . . effectively demonstrated that children do not thrive, in spite of good physical care, if kept as young infants in impersonal institutions, and that separation from the mother—especially at certain periods—has serious deleterious effects on the child. Retardation, failure to learn to talk, apathy,



Fig. 18-2. Parent-child interplay. Orma tribe. Kenya, East Africa. (*British Information Service*.)

regression, and death all appear as accompaniments to institutionalization when no mother surrogate is provided.¹

Just as sociological fathers and mother's brothers are found to perform the male roles in the family in many societies, so substitute or surrogate mothers may do equally well if the relationship is personal, as it may be when done within the intimate setting of the family circle, thus providing that direct emotional response upon which the human infant must feed. Nursing involves more than the imbibing of mother's milk. The surrogates may in many instances be direct substitutes for the biological mother or father, as in the operation of the sororate and levirate, or they may be collateral surrogates, who play the parental roles on a less intensive level. A Navaho child may find himself cared for and nursed by a number of clan sisters of his mother, whom he learns to call "mother" under the Navaho system of kinship terminology, and who, for their part, call him "son" from the beginning. The family is not necessarily the small, nuclear family, isolated in its separate dwelling unit; it may be this, but it may also exist as a regular cell-like feature of a larger familial structure.

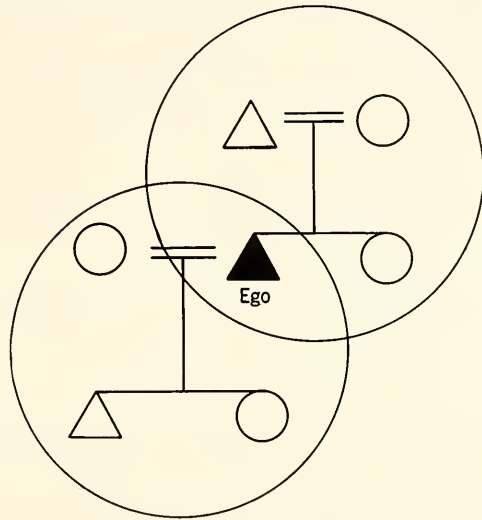
Thus, although the nuclear family occurs in all societies, it is the sole form of familial unit in only about one-fourth of them. In about half of the societies of the world the nuclear family is encysted within some kind

¹ M. Mead, "Some Theoretical Considerations on the Problem of Mother-Child Separation" (*The American Journal of Orthopsychiatry*, Vol. 24, 1954), p. 474.

of extended family, a larger kinship group that includes more than a single set of spouses and their children.²

Every individual who is legitimately born and not forthwith orphaned, and who ultimately marries, is a member of a primary and secondary conjugal family—that of his father and mother and that which he himself founds. In the first he is an offspring; in the second a progenitor. In the first, his relationships are those of child to parent and sibling to sibling. In the second, his relationships are those of spouse to spouse and parent to child (Fig. 18-2). The statuses and roles of the individual are quite different in each of the two conjugal families to which he belongs. Therefore from the point of view of the interacting individual, the two families offer different social experience. Yet, as we view them from the outside, both families are identical in form and functions.

Fig. 18-3. The dual nature of the conjugal family.



The conjugal family is limited both in scope of membership and in duration. It can include no more persons than a mated pair can produce within their time of fecundity. And it cannot endure for more than the lifespan of one and a fraction generations. The fraction of a generation is that part of the lifespan after the marriage of the founding spouses, while the whole generation is the lifespan of the children that are born into it. Each conjugal family gradually wastes away as death takes its toll, until at last it is no more. The conjugal family is a discontinuous social unit. Each is born and destined to die within the span of a century.

This is a consequence of the universal incest tabu, for if parent could marry child, and brother sister, a conjugal family could be continued indefinitely through internal replacement as the original members die off.

² G. P. Murdock, *Social Structure*, p. 2.

Perpetuity of the conjugal family is forgone, however, in the interests of temporary stability. The individual family sacrifices itself as an entity in the interests of maintenance of the stability of the whole society, for this is of more fundamental importance.

Residence. A conjugal family almost always has a home. Because of the sentiments that suffuse the family relationship, "home" connotes a good deal more than "house." A long-abandoned dwelling is a house, but it was once also a home. We sing fondly of "Home, sweet home," but it is unimaginable, for reasons that are clear enough, that we would ever burst into heart-moving song over "House, sweet house."

The rules of exogamy require that a man and wife always come from separate conjugal families and separate households. Upon marriage, the first question to be settled is: Where shall we live? In most societies this issue is resolved ahead of time and therefore does not call for debate or allow much room for individual preference. The custom of the tribe may be *virilocal* (L. *vir* male + *locus* place), according to which the newlywed couple settles in the locality of the husband's primary conjugal family. *Virilocal* is synonymous with *patrilocal*, the more traditional term in ethnological usage, which literally means "residence with the father." Inasmuch as it is the locality of the husband's home that is the determining factor, *virilocal* should be the preferred term.

On the other hand, the custom of the tribe may be for the couple to settle in the locality of the wife's parents, in which case it is called *uxorilocal* (L. *uxori* wife + *locus* place), which is synonymous with *matrilocal*, a term less preferable for the same reasons that apply to *patrilocal*.

A few tribes with little fixed property and weak social organization leave it up to the couple to settle in the locality of either the bride's or groom's primary conjugal family. This practice is known as *bilocal* residence.

A small number of matrilineally oriented societies expect the couple to settle in the locality of the male's mother's brother. In this situation we have *avunculocal* (L. *avunculus* mother's brother + *locus* place) residence.

Finally, some social systems, as our own, provide for independent establishment of residence without too much reference to the prior location of the primary conjugal families of the newly married pair. This condition bespeaks *neolocal* residence, which is in effect an absence of restrictive rules of residence.

Five basic principles of residence are therefore possible: (1) *virilocal*, (2) *uxorilocal*, (3) *bilocal*, (4) *avunculocal*, (5) *neolocal*. In most societies one rule alone prevails for the married life of a couple, although some may use combinations of two or more. Thus, among the nomadic Plains Indians, a couple's first tipi was usually set up beside that of the bride's parents for a year or so. Then, when the new household was well estab-

lished, the young couple was likely to camp with the groom's family. Among the Dobuans a couple alternates residence in each other's village every other year. And in some complex primitive societies, such as Ashanti in West Africa where the ideal rule is virilocal, there may actually be a good deal of informal variation from case to case.³

It should be immediately obvious that the nature of residence patterns strongly affects the internal quality of the family unit and its extensions. If residence is uxorilocal, the woman is in constant daily interaction with *her* parents and sisters. The children of sisters grow up together, and the children of brothers do not. Husbands are "aliens" in a new setting. Sisters are grouped in a continuing solidarity. The opportunity for women to exert a solid front is enhanced, and their position in the direction of social affairs is stronger. With virilocal residence just the opposite occurs.

It makes a difference, too, as to whether marriages are based on village exogamy or endogamy. If the marriages take place within the local group or village, the differentiating effects of residence rules are much reduced. In spite of virilocality, if the home of the bride's parents is only a hundred yards away, the continuity of her tie to her primary conjugal family is not so seriously strained as it is when she is transported to another village; concomitantly, the influence of the paternal group cannot be so strong.

Monogamy. The independent conjugal family is possible only when marriage is monogamous, but monogamy as the sole permitted marital form exists in only a minority of human societies (1 in 5.5 societies in Murdock's sample).⁴

The normal state of affairs is to allow polygamy, especially in the case of men of power and social leadership. Still, it is important to realize that what is permitted in a culture and what prevails in fact may be two different things. Thus, it is usual to refer to societies whose cultures permit multiple marriages as *polygamous*; yet it is unlikely that more than a few marriages in any society will actually be polygamous, since a number of factors limit multiple marriages.

First, there is the relative balance of the sex ratio. Approximately equal numbers of males and females are born. Unless some selective factor operates in favor of one sex and against the other, there will be an approximate equality in the numbers of adult males and females available for marriage. If this is the case, whenever one man has two wives, some other man in the tribe has to do without. There is, of course, the possibility that the short-wived men may band together to share one wife among themselves, but such polyandrous arrangements are very rare.

³ M. Fortes, "Time and Social Structure: An Ashanti Case Study," in M. Fortes (ed.), *Social Structure*, pp. 54-84.

⁴ Murdock, *op. cit.*, p. 28.

If it is the current practice for a man to settle in the household of his wife, he obviously cannot live with all his wives simultaneously unless his wives are sisters. Uxorilocal residence discourages the polygynous form of polygamy. Beyond this, the attitudes of his in-laws will discourage marriage with women from other kin groups, especially if the society is matrilineal and the wife's relationship group is in a strong position. Marriage is a kin-group alliance, and a son-in-law whose affinal allegiances are multiple is apt to be less desirable than one whose affinity is to one group alone.

Few precise statistics are available, but all reports indicate that monogamous marriages actually predominate in most societies that are permissibly polygamous. Contrary to the notions of nineteenth-century anthropologists, monogamy most definitely is not the end product of an evolutionary series narrowing down from primitive promiscuity to civilized monogamy. The very primitive Andaman Islanders and the Semangs of the Malay forests limit themselves to one wife apiece, but the Semangs marry again and again in serial monogamy, Hollywood style. Inca commoners were forbidden to marry more than one wife, but a man might receive a concubine as a gift in reward for faithful service to his overlord. The occurrence of prescribed monogamy among the matrilineal, uxorilocal Iroquois in New York and the equally matrilineal, uxorilocal Hopi and Zuñi suggests that in these instances monogamy is correlated with female-dominated residence and economy. Monogamy prevails among all the Southwest Pueblos, but among the Eastern Pueblos of New Mexico, where female dominance fades out, it is impossible to tell whether this is due to ancient Pueblo custom, or whether it has been brought about by the influence of the Catholic Church. Among the Zuñi and Hopi, monogamous marriages are very brittle. Among the Keresan Pueblos, however, the Catholic injunction against divorce is rigidly adhered to. Clandestine relations outside of marriage occur among all these people.

Exclusive monogamy is not correlated with any stage of culture. Its absence among pastoral nomads, who are predominantly patrilineal, is nevertheless a notable fact.

THE COMPOSITE CONJUGAL FAMILY

Polygyny. Within polygamous marriages we have been drawing a distinction between polygyny and polyandry. *Polygamy* means multiple marriages. *Polygyny* means multiple women. *Polyandry* means multiple men. Polygyny is, therefore, that form of family in which a husband has more than one wife at one time. *Bigamy* is the more special form of polygamy in which the husband limits himself to two wives, or a woman to two husbands.

There are a number of social motives underlying polygyny as an institution. If a man has the means to support several wives, he is able to present a richer and better-equipped household to the world. More women can prepare better clothes and food. If women's handicrafts are marketable or suitable for exchange, his household wealth will be enhanced. When the Blackfoot Indians found a lucrative outlet for tanned hides in the Canadian fur trade and women as tanners were an economic asset, polygyny grew to an extent unprecedented for the Plains. Bride price went up and the age of marriage for girls went down, while the age of marriage for men was set back; well-established Blackfoot entrepreneurs cornered the available women, and it took young men a longer time to acquire enough capital to purchase wives.⁵

Polygyny may also serve as a mechanism for competitive status in the sexual field when to have and to hold several wives against all comers is a dangerous task, as among the Eskimos.⁶

Strange as it may seem to us, it is repeatedly reported that in many tribes the women do not object to their husbands taking on additional wives. This is most apt to be true when additional wives are coworkers or "chore wives," as among the Comanches of the Plains. A secondary wife may be desired for the performance of special functions, as with the African Baganda, among whom a second wife is chosen from the husband's paternal grandmother's clan. This wife is charged with the responsibility of caring for her husband's hair and nail clippings.

On the other hand, instances are on record of primitive women who have shown extreme jealousy when their husbands brought home a new wife. A Cheyenne woman hanged herself because her husband took a Pawnee captive to wife, but her own grandmother remarked that, "She was foolish to hang herself over such a little thing."

Most primitives aver that polygyny works out best when a man's several wives are sisters. This is psychologically reasonable, in so far as sisters are more used to each other's ways than unrelated women; they are subject to the influence of emotional loyalty acquired in childhood as members of the same conjugal family. As representatives of the same marriage group, their nonpersonal interests in the marriage are identical, which is not the case with unrelated women. Sororal polygyny is in effect an anticipation of sororate privileges. A man does not wait for the death of his wife before he marries her younger sister. Instead, as among the Comanches, he has an expectation that if he performs his son-in-law obliga-

⁵ O. Lewis, *The Effects of White Contact upon Blackfoot Culture, with Special Reference to the Role of the Fur Trade* (American Ethnological Society, Monograph 6, 1942), pp. 38-40.

⁶ E. A. Hoebel, "Law-ways of the Primitive Eskimos" (*Journal of Criminal Law and Criminology*, Vol. 31, 1941), pp. 663-683.

tions to his wife's parents, they will reward him with his wife's younger sister when she becomes of age.

Where exchange marriage prevails, the levirate will also work to produce sororal polygyny. Thus when brothers have married sisters, if a man inherits his deceased brother's wife, his two wives are automatically sisters.

Various household arrangements are made to adjust to the requirements of the multiple-wife family. The Angola practice is probably typical of Sudanese African tribes. Hambly tells of an Angola headman with eleven wives for each of whom he had a separate hut in his compound. The Ovimbundu Negroes provide each wife with a separate kitchen, which serves as the center for her brood. The husband customarily sleeps with each wife four or seven successive nights, as his personal habit may be.⁷ If a Comanche had less than four wives, they usually shared the same tipi. More than four wives necessitated at least a couple of tipis for the household.

Polygamous Mormon settlers sometimes kept their entire family under one roof, but with separate entrances and sections of the house for their different wives and children. In 1950 a polygamous husband owned a small auto court that housed his five conjugal families separately but yet together.

Within composite families a hierarchical distinction is usually firmly set as between the wives. The first-married wife is given a No. 1 position of authority, so that even though she may be displaced by a later wife as a sexual favorite, she still has the gratification of priority in formal status. The Comanches, again, clearly recognized this, for secondary wives were "chore wives" who had to do household work under the direction of No. 1. No wonder the busy wives of great chieftains were usually quite willing to have their husbands marry extra housekeepers. It helped lighten their load.

Polyandry. The actual marriage of several men to one woman is as rare as the marriage of several women to one man is common. Tibetans and the Todas of India are the most famous polyandrists.

Usually, the Toda polyandrous union is fraternal, but not always so. A few polygynous marriages occur, and quite a few monogamous ones. However, female infanticide results in a shortage of adult women, so brothers often band together as a group of husbands. Children are ordinarily betrothed in infancy and the boy gives progeny price payments two times a year all through his childhood. He also has to provide a buffalo to help pay funeral expenses of members of his betrothed's family. Just before puberty, the girl is deflorated by a man from some clan other than her own. Then she is ready for marriage. Right after puberty, she is given a

⁷ W. D. Hambly, *Source Book for African Anthropology*, pp. 418-419.

dowry and taken to the home of her husband. Although she may have been betrothed to just one man, it is understood that she is also the wife of all his brothers. Even a boy yet unborn may become her husband, along with his elder brothers, when he becomes of age. All the brothers live together and share their wife without friction and, we are told, without jealousy. When the wife becomes pregnant, one of the brothers goes through a ritual of "presenting the bow." This makes him the sociological father of the ensuing child and the next couple of children to be born. There is no concern over whether he may be the biological sire or not. After he has his share of offspring to sponsor, another brother "presents the bow," thus making himself the father of the next group of children, and so on. This disregard of biological paternity in favor of ceremonially established sociological fatherhood is also manifest in a way reminiscent of Sakalava progeny price privileges mentioned previously (page 305). Occasionally, a Toda woman may leave her legitimate husbands to live with another man without official approval, or she may take a concubitant, who pays her husbands for the privilege; in either case, her subsequent children still belong to the man (her husband) who performed the bow and arrow ritual.⁸

Polyandry in the Darjeeling district of India is restricted to the younger brothers of the man who performs the wedding rite with the wife. If the elder brother dies and the common wife has no children, she may break the polyandrous bond by first tying a string to a finger of her No. 1 husband's corpse and binding it to one of her own fingers. Then by severing the string, she symbolically destroys the marriage tie.

Tibetan and Eskimo polyandry have been attributed to the practice of female infanticide. While it is true that both peoples practice infanticide, British census figures do not indicate a surplus of adult men in Tibet, and reliable censuses of the primitive Eskimo indicate that women exceed men in numbers in almost all Eskimo communities in spite of the common destruction of baby girls.

Although rare, polyandry is more common (at least in modified form) than was thought to be the case a few decades ago. A form of polyandry has been reported from at least two East African tribes, leading us to expect that other unreported instances probably occur. Among the Banyankole and the Bahima, where progeny price is high, a poor man may call on his younger brothers to contribute cattle to his cause.⁹ All the brothers who have "kicked in" take turns in living with the bride until she becomes pregnant, when she then lives with her "husband." Who-

⁸ W. H. R. Rivers, *The Todas*, pp. 477-480.

⁹ J. Roscoe, *The Banyankole*, p. 123; "The Cow Tribe of Enkole in the Uganda Protectorate" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 37, 1907), p. 105.

ever the sire may be, the resultant child is the social offspring of the elder brother who married the girl.

In northern Nigeria, according to Meek's observations, "A Gwari woman may have several husbands and families in different towns, living now with one, now with another, as she feels inclined. As the children belong not to the first husband but to the actual father, we have here a fairly close approximation to actual polyandry."¹⁰

In North America limited polyandry is now known to have existed among a number of tribes of the Great Plains¹¹ and the Basin area.¹² In these cases there was no shortage of women to account for the practice. Instead, in the case of the Shoshones, who considered exchange marriage between a group of brothers and sisters on an equal basis to be the most desirable form, it is easy to see that these Indians were imbued with the idea of the sexual equivalence of brothers to each other and sisters to each other (which is also the probable cause among the Eskimo, although there it is possible that extensive polygyny produces an artificial shortage for the weaker men).¹³ Sexual rights to one sister were easily transferred to other sisters in sororal polygyny and the sororate. Likewise, the woman's rights in her husband (and his rights in her) were just as easily transferred to her husband's brothers in the levirate and fraternal polyandry. This notion of the sexual equivalence of brothers crops up in the quaint Shoshone and Comanche custom whereby an aggrieved husband courteously addresses an adulterer who has made him a cuckold as "brother." Men who have had sex relations with the same woman are "brothers" even though unrelated and even while the husband is prosecuting the adulterer for damages!

What we previously named *anticipatory levirate* (see page 296) may also be conceived of as *attenuated fraternal polyandry*. When a Shoshone or Comanche elder brother shares his wife with his unmarried younger brother, it is in anticipation of the younger brother's levirate privilege. Or, if emphasis is placed on the sexual equivalence of brothers, it is a polyandrous relationship—attenuated, however, since the younger brother is not married in common to the woman in the full sense of the word.

Among the Skidi Pawnee, anticipation of husband's sister's son marriage (see page 297), an extension of the avunculate, produced another variant of attenuated polyandry. According to Dorsey and Murie,

¹⁰ C. K. Meek, *The Northern Tribes of Nigeria*, Vol. 1, p. 198.

¹¹ A. Lesser, "Levirate and Fraternal Polyandry among the Pawnees" (*Man*, Vol. 30, No. 77, 1930), pp. 98-101.

¹² J. H. Steward, "Shoshone Polyandry" (*American Anthropologist*, Vol. 38, 1936), pp. 561-564.

¹³ E. A. Hoebel, "Eskimo Infanticide and Polyandry" (*The Scientific Monthly*, Vol. 64, 1947), p. 535.

When a boy reached puberty he was taken in charge by his mother's brother's wife. From this time until his marriage, he maintained sexual relations with her, and entered a different stage immediately after having had intercourse with this woman. When her real husband was off hunting or on the warpath, the youth continued to have marital relations with her. Thus it might happen that for four or five years a woman would have an additional "husband," or possibly three or four, with a temporary state of polyandry thereby prevailing.

Inasmuch as an unmarried boy could also share his brother's wife, he could belong to two distinct types of attenuated polyandrous groups simultaneously.¹⁴

There is thus a borderline type of polyandry, which when combined with polygyny shades into so-called "group marriage."

It is a difficult, if not impossible, problem to determine why polyandry is so infrequent and polygyny not so. Does the fact that men do not often marry one woman in common mean that they are resistant to the idea? And does the fact that women do frequently marry one man in common mean that the female sex is devoid of such resistances? Or are there purely sociological factors that make polygyny functionally effective and polyandry less so?

The first possibility suggests an explanation in terms of an innate tendency toward male dominance. There is ample sociological and psychological evidence to support the idea that dominance drives are of extreme significance in human and animal behavior.¹⁵ Innate dominance patterns as between the sexes among the subhuman primates vary by genera and species. Males among the Old World monkeys are brutal and sadistic in their terrorization of all females and weaker males, but dominance differences are weakly developed among the New World primates. Among the great apes, all of whom are Old World primates, dominance by the males is present but rarely harsh, and it is usually "strongly mitigated by friendship, affection, sympathy, and cooperation."¹⁶

Among human beings dominance relations are, of course, tremendously influenced, both as to degree of intensity and forms of expression, by culture. But with rare exceptions the cultures of mankind award the greater amount of dominance to the male of the species. Culture is, by and large, shaped to the advantage of males and interpreted in terms of male interests. The near universality of this condition, coupled with the significant innate dominance drives of male primates, indicates the probability of an elemental dominance drive in human males of a more intense nature than may be the case with females.

¹⁴ G. A. Dorsey and J. R. Murie, "Notes on Skidi Pawnee Society" (*Field Museum of Natural History, Anthropological Series*, Vol. 27, 1940), p. 96; see also p. 85.

¹⁵ K. Young, *Social Psychology*, pp. 360ff.

¹⁶ E. A. Hooton, *Man's Poor Relations*, pp. 324-329.

Competition for status among males also takes the form of overtly aggressive rivalry and conflict among human beings to a degree of intensity and violence rarely exhibited by females. The Musk Ox Eskimos visited by Rasmussen, who found that every adult male in the tribe had been involved in a murder, usually over some female, represent an extreme manifestation of this behavior.¹⁷ But this is merely an exaggeration in intratribal relations of the common violence involved in the stealing or capturing of wives from alien tribes that occurs over and over in many parts of the primitive world. On the other hand, there is no evidence that any culture ever established the forceful capture of men by women as a social habit. Woman's weapon is "feminine wile"—a decidedly more subtle technique.

Male dominance can, therefore, be manifest over others by means of exclusive sexual possession of a woman or women desired by other males, and by limitation of the woman's sexual activity to her one husband. The husband who marries a woman in common with other men must submerge his sexual dominance within the polyandrous group. W. I. Thomas is correct in his acute observation that polyandry "represents a minimum satisfaction of the claims of men."¹⁸ Women are frequently forced to accept a polygynous relation, finding compensation in the advantages that result in such a family relationship.

The biological factor of childbearing and child nursing also contributes to polygyny rather than to polyandry. Primitive mothers are usually continent during pregnancy and nursing, which may be prolonged for years. In this situation, the husband who can manage it will find multiple wives advantageous—a need the woman does not face on this basis.

WIFE HOSPITALITY

In spite of what has just been said, it is a widespread primitive practice for men to share their wives with certain other men on specific occasions. Most commonly, a host deems that proper social form requires him to offer the hospitality of his wife to an overnight guest. An early white trader on the upper Missouri River, Jean Baptiste Trudeau, took note that, "so true is this, that husbands, fathers and brothers, are importunate with the white men who visit them, to make free with their wives, daughters, and sisters, particularly those who are most youthful and pretty."¹⁹ Similar concepts of hospitality have been noted in all parts of the primitive

¹⁷ K. Rasmussen, *Across Arctic America*, p. 250.

¹⁸ W. I. Thomas, *Primitive Behavior*, p. 118.

¹⁹ G. H. Smith, "J. B. Trudeau's Remarks on the Indians of the Upper Missouri, 1794-95" (*American Anthropologist*, Vol. 38, 1930), p. 567.

world by countless explorers, travelers, and other lay observers, as well as by anthropologists.²⁰

From Africa, we have Roscoe's statement on the Banyankole that "A married woman is expected to entertain any guest of her husband and invite him to her bed. This is a mark of hospitality shown by all married men to their visitors." Even if the visitor is the husband's father, the husband moves over to stay with a married neighbor while his visitor enjoys his domain.²¹ Wife lending among the Eskimos is so well known as scarcely to need mention.

Many explanations of wife hospitality have been offered. Evolutionary anthropologists at one time held it to be a survival of primitive promiscuity. A sounder interpretation was offered by Robert Briffault, who wrote a famous book on primitive sex and family relations, called *The Mothers*, when he declared that "The practice, very inaptly called 'hospitality prostitution,' is not a matter of misguided benevolence, but a necessary pledge that a guest is a friend and not an enemy." Briffault cites evidence of the killing and the threatened killing of white travelers who refused the offer of the hosts.²² This is evidently what caused the slaughter of the five American missionaries in Ecuador early in 1956 by the so-called Auca Indians. What a problem confronts the doughty missionary who braves the perils of the savage world! Briffault is probably extreme in his assertion that the universal implication that one who refuses wife hospitality gestures is *ipso facto* seen as an enemy. Nevertheless, the act is one of real or imputed brotherhood, and it involves the idea of reciprocity in brotherhood. It is also expected that the favor will be returned whenever the host happens to visit the guest in his home. As one of my Comanche friends put it, "When a man lets his younger brother have his wife, he expects the younger brother to do the same for him when he marries. If the younger brother refuses, his brother won't feel right about it." There is also the unauthenticated story of an American anthropologist who enjoyed the favor of a Polynesian chieftain's wife in the Pacific, but who, much to the disgust of the chief, thought differently of the custom when the chief came to this country.

That such attitudes are not mere aberrations of the Comanches and Polynesians is fully attested by Murdock's findings to the effect that nearly two-thirds of the societies in the Yale Cross Cultural Survey for which data are available permit postmarital sexual intercourse between a man

²⁰ Cf. E. Westermarck, *The History of Human Marriage*, Vol. 1, pp. 224-230, for a more detailed body of references to the custom.

²¹ Roscoe, *op. cit.*, p. 123.

²² R. Briffault, "Group Marriage and Sexual Communism," in V. F. Calverton (ed.), *The Making of Man*, p. 223.

and his brother's wife (anticipatory levirate) or between a man and his wife's sister (anticipatory sororate).²³

GROUP CONCUBINAGE

When wife lending becomes a settled arrangement among sets of men, it takes on the color of group marriage. Siberian natives and Eskimos often set up a system of partnerships (between men of different communities) within which the men regularly share their wives when any one of the partners visits in the settlements of any of the others. If the traveler is accompanied by his wife, he nevertheless exchanges mates for the duration of the visit. This gives the superficial appearance of group marriage. Yet it is hardly that, since the members of the exchanging set are not in a permanent marriage relationship to each other's wives.

This is also true of what were believed to be group marriages among certain natives tribes of Australia. As Lowie has carefully pointed out for the Dieri tribe, a man marries only one woman: his mother's father's sister's daughter's daughter (a second-degree cross-cousin). The tribal elders may then designate his wife to serve as a concubine for other men who are also her second cross-cousins in the manner just noted. The husband may get other such women assigned to him as his concubines. Even single men may enjoy such a privilege. These secondary relations are concubinage and not marriage, because a "wife invariably takes precedence over the concubine when both occupy the same camp" and "the husband—the duly affianced spouse—enjoys an undisputed preemptive right over his wife." A concubitant may enjoy his rights only in the husband's absence or with his consent.²⁴

In all these instances of wife lending, one important fact is present. The bestowal of the wife's favor is the prerogative of the husband. For the wife to assume the privilege on her own and without the explicit or implied consent of the husband is almost always punishable as adultery. Comanche husbands, who shared their wives with "brothers" on proper occasion, brutally mutilated and punished any wives who had extramarital relations on their own. They then invariably collected damages from the correspondent. Eskimos, for all their licentious freedom, consider adultery a killing matter, or at least cause for a song duel. Adultery, like wife stealing, is an affront to the husband's status and a challenge to his dominance position, which leads to violent reaction by the male except in societies where the culture plays down status competition among men.

Finally, sex communism, which would imply equal sexual prerogatives

²³ Murdock, *op. cit.*, p. 268.

²⁴ R. H. Lowie, *Primitive Society*, pp. 52-53.

and marriage obligations between a group of men and women, does not exist in clear form in any known primitive society. It has been tried in one or two modern Utopian communities, but not for long.

Earlier anthropologists made much of a hypothetical stage of promiscuity preceding any restrictive family relationships. We must agree with Lowie that there is no empirical evidence of such a condition surviving in any observed system of social relationships among men. Nevertheless, inasmuch as men evolved from lower primates and inasmuch as all living primates are promiscuous, it is probable that our own primate progenitors were equally unrestrained. But there is no way of knowing when or just how emergent man came to establish marital inhibitions to promiscuity. Hypothetical speculations on this subject may be intriguing and amusing, but hardly useful. By the time anthropologists came upon the scene, notebook in hand, the conjugal family, be it monogamous, polygynous, or polyandrous, had conquered the fancy-free promiscuity of the ape man.

THE KINDRED

The family tie does not stop short with parents and children, for parents have their parents and grandparents, uncles, aunts, and cousins to whom the bond of kinship extends. In most societies the cementing effect of these bonds is strong enough to produce a network of special relations between relatives to make the relationship group distinguishable as an entity within the larger society. This is the extended family, or *kindred*.

In our own society, where its members are collectively called "kinfolk" or "relatives," it includes that group of near kinsmen who may be expected to be present and participate on important ceremonial occasions, such as weddings, christenings, funerals, Thanksgiving and Christmas dinners. Members of a kindred visit and entertain one another freely, and between them marriage and pecuniary transactions for profit are ordinarily taboo. However much they may disagree or quarrel, they are expected to support one another against criticism or affront from outsiders.²⁵

As a social form the kindred is congruent with the biological facts of genealogical relationship in its bilateral linking of kinsmen. The American who is not familiar with the facts of anthropology is apt to assume that the social existence of the kindred is a natural feature of human societies. The fact is, nevertheless, that no more than a third of the tribes and nations of the world include bilateral kindreds in their social structures. The sizable majority extends the family unilaterally.

Unilateralness means one-sidedness. The unilateral principle of extension embraces but one half of the network of relatives and arbitrarily ex-

²⁵ Murdock, *op. cit.*, pp. 56-57

Fig. 18-4. Grandparent-grandchild bonds within the kindred. Solomon Islands. (Douglas L. Oliver.)



cludes, or ignores, the other in certain respects. The reckoned side may be either the father's or the mother's. If it is the father's, then the father's father is included, but not his mother. A man's son's children will be included, but not his daughter's. This kind of organization rests on the *patrilineal principle of unilateral descent*. If the selection is done through female relatives, the principle is one of *matrilineal unilateral descent*.

Elaboration of social organization along unilateral lines produces the composite unilineal family, lineage, clan, moiety, and phratry as significant social groups above and beyond the conjugal family.

THE COMPOSITE UNILINEAL FAMILY

Many primitive cultures that have achieved the higher levels of technological development, as well as a number of civilized European societies, especially in the Balkans, fuse the conjugal family within a larger joint family that dwells in a single household. This type of social unit is frequent in modern Asia, as well. The composite joint family household is always unilineal. The essential difference between the composite conjugal family and the composite unilineal family (hereafter called *joint family*) is that the former involves but one spouse with several mates, while the latter involves several brothers (or sisters) living together in a single household, each with his or her own distinct spouse and offspring.

Linton's description of the patrilineal joint family among the Tanala of Madagascar presents a quite typical example.

A Tanala joint family begins with a single conjugal family. When the sons grow up and marry, they build new houses for themselves close to their parental home. The married daughters move out to their husbands' homes, which are usually in the same village. Although a married daughter no longer dwells in the parental household, she is still very much a part of the joint family, for her father's orders supersede the wishes of her husband. The father, as head of the joint family, directs all its activities in clearing and cultivating the fields for dry-rice culture, care of the family cattle, etc. All earnings of the male members are placed in his hands for investment in cattle and dispersal in the provision of progeny price and such little cash needs as the sons may have. As long as the father lives, a man has little chance to accumulate any wealth in his own right. The joint family is a cooperative work group and a corporate unit in dealing with other members of the society.

As long as the founder lives, his male lineal descendants are bound to the joint family, and it is not uncommon for a patriarch to have a dozen or more able-bodied sons or grandsons under his control. Upon his death, the process of fission starts. Although the family continues to live and work together under the leadership of the eldest son, his brothers do not have to put their earnings into the common holding unless they wish to. When he, in turn, is at last succeeded by his eldest son, the joint family begins to break up. The third generation leader is younger than most of his uncles, who become restive under his leadership. More than this, it is likely that the group will have grown too large for its land holdings. Then one or more men split off to found a new joint-family household elsewhere.²⁶ The functional significance of economics for the joint family is shown by Linton's analysis of the breakdown of the joint family resulting from the introduction of wet-rice culture among the neighboring Betsilio tribe.²⁷

Among gardening and pastoral peoples, the joint family appears universally to be a corporate landowning entity, living in a single dwelling or closely spaced houses that form a household. Archaic Indo-European peoples commonly favored this type of setup, which is known among the peoples of the Balkans as the *zadruga*, such as was visited a few years ago by Louis Adamic.

. . . We were guests in the home of a family counting sixty-eight members. It was one of the few remaining family *zadruga* or collectives, in Serbia.

²⁶ R. Linton, "The Tanalas of Madagascar," in A. Kardiner, *The Individual and His Society*, pp. 189-192.

²⁷ *Ibid.*, pp. 282-290; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 350-356.

We met about forty of the members, including the *stareshina*, or head of the family, a patriarch of seventy and absolute ruler of the group. The enormous household, with a considerable tract of ground and a twenty-room house, was all but self-sufficient economically. Every member above ten had his or her special duty to attend to. Six women and girls, supervised by the *stareshina's* wife, did nothing but cook and bake. Eight other females only spun, weaved, sewed, and embroidered. Five men and boys attended to all the sheep, goats, buffaloes, cattle, and horses. One man was the family shoemaker. And so on. Eleven families lived under the same roof. The husbands were all the *stareshina's* brothers, sons, and grandsons; their wives had married into the *zadrugá* from near-by villages.²⁸

In India and Pakistan the patrilineal joint family, called *kumbah* in Pakistan, is still a vital form even in the urban setting. In such large cities as Karachi a joint family will occupy a single, five- or six-story house, with the parents on the lower floor and each son establishing his secondary conjugal family on succeeding floors in order of seniority—the youngest having the most flights to climb. Even fully trained professional men, if conservatively oriented, turn their salaries over to the household father and mother to administer on behalf of the group as a whole.

If the extension of kinship is on matrilineal lines, the joint family will be matriarchically organized, as is the Iroquois joint family, whose dwelling structure is described in Chapter 12.

Of the matrilineal type of joint-family household, that of the famous Nyar caste of the Cochin state on the Malabar coast of India has long held the interest of anthropologists.

The Nyar are supposed to have been the ruling class of the aboriginal society predating the Hindu influx. Today they form the third-ranking caste of a complex and caste-dominated society. Above them is the royal house, of great wealth and power, which may have emerged long ago from the Nyars themselves. Beneath the royal house (but far above the Nyars in sublimity) is the caste of Nambudiri Brahmans, whose sacred families are patrilineally organized on a strict basis of primogeniture. The Nyars are a closed caste of landowners and professional soldiers, who in contrast to the Brahmans have been strictly matrilineal and uxorilocal. The household, or *taravad*, is a joint organization housed under one roof. The eldest woman is titular head of the household, but the house, lands, and joint property are administered by the eldest brother for the benefit of the group. All the males (brothers, sons, and grandsons) contribute to the maintenance of the *taravad* and draw their support from it. Only the offspring of the women belong to the *taravad* and are maintained within it. The men mate with women of other *taravad* without obligating themselves to any legal duties toward their "wives" or children.

²⁸ L. Adamic, *The Native's Return*, p. 215.

In its extreme forms, marriage by members of the *taravad* is often no more than a ritual bow to Hindu convention. If a ceremony is performed, it may soon be followed by legal divorce, even though the couple continues an enduring relation as mates. For unlike most joint-family practices elsewhere, the Nyar male may not live in the joint-family household of his mate. They just visit together, and out of these visits come the children who people the *taravad* of their mother.

Both men and women may have several mates simultaneously, since mating involves no formal obligations. Younger sons of the Brahman class may enter into sexual alliances with Nyar women, but they still remain outside the *taravad*, as their children remain irrevocably fixed within it.

Professor Linton even maintained that the conjugal family is non-existent among the Nyars, but it is clear that this is overstating the case.²⁹

Under changing economic and social conditions the Nyar matrilineal joint family has been gradually dissolving under the corrosion of increasingly strong patrilineal tendencies.³⁰

THE SUSU

The *susu* is a kinship group consisting of a woman, her brothers, and her offspring. However much we may cherish the conjugal family as a social unit, it is functionally far from ideally suited to the ends it must fulfill. In the first place, the conjugal family is very unstable. There is the constant possibility of divorce, and where divorce is not countenanced, emotional disturbances arising from the incompatibility of the father and mother can easily destroy the affective solidarity that is so important to good family functioning. If a primary purpose of marriage is to fix the biological father of children with the economic and social responsibility of providing for his children's nurture, this essential social need is seriously impaired when the father divorces the mother. True enough, the consequences of a conjugal family breakup are not so serious in a primitive society where the mother is securely embedded in the protection of her extended family and where remarriage is easier than is usually the case with us. Nevertheless, the brittleness of the conjugal family is a definite deficiency.

Also, the conjugal family is a temporary association. It begins and ends with the union of the married pair and the dispersal of the children. Furthermore, upon marriage a person enters a new conjugal family and

²⁹ Cf. C. D. Forde, *Habitat, Economy and Society*, pp. 276-277.

³⁰ E. K. Gough, "Changing Kinship Usages in the Setting of Political and Economic Change among the Nyars of Malabar" (*Journal of the Royal Anthropological Institute*, Vol. 82, 1952), pp. 71-87.

his loyalties are split. From our own experience we know the tensions that can result from the pull of loyalty to our husbands or wives as against our fathers and mothers. The instability of the conjugal family and its short time span also limit its usefulness as a means of inheritance of property and perquisites. In order to overcome these disadvantages, many primitive societies utilize the *susu* along with the conjugal family. The *susu* complements rather than displaces the conjugal family.

Thus in Dobu the conjugal family is the household unit, i.e., its members live together. After marriage, because a man never enters his sister's house, the *susu* has no household base. However, children cannot eat food grown in their father's fields; all fishing gear, including canoes, is used jointly by *susu* members only and is inherited only within the *susu*. Consequently, the *susu* has an economic base and the conjugal family does not. Emotional security is found only in the *susu*, and not in the conjugal family. Husband and wife, coming as they do from different *sus*us, are hostile at marriage and all their days thereafter. Each believes the other is trying to destroy him by foul magic. All Dobus believe that all other Dobus except those of their own *susu* are their magical enemies. The *susu* inherits the corpse and skull of its members. It bestows personal names and social status in relationship terms. Widows, widowers, and the children of a dead person may never enter the village of the deceased spouse or parent. But—*susu* relatives of a dead person may enter the village of the surviving spouse or children.

The differentiation and interrelationship of conjugal family and *susu* are also strikingly revealed by the Zúñis of New Mexico, of whom Benedict writes:

To the women of the household, the grandmother and her sisters, her daughters and their daughters, belong the house and the corn that is stored in it. No matter what may happen to marriages the women of the household remain with the house for life. They present a solid front. They care for and feed the sacred objects that belong to them. They keep their secrets together. Their husbands are outsiders, and it is their brothers, married now into houses of other clans, who are united with the household in all affairs of the moment. It is they who return for all the retreats when the sacred objects of the house are set out before the altar. It is they, not the women, who learn the word-perfect ritual of their sacred bundle and perpetuate it. A man goes always, for all important occasions, to his mother's house, which, when she dies, becomes his sister's house, and if his marriage breaks up, he returns to the same household.

This blood-relationship group, rooted in the ownership of the house, united in the care of sacred objects, is the important group in Zúñi. It has permanence and important common concerns. But it is not the economically functioning group. Each married son, each married brother, spends his labour upon the corn which will fill his wife's storeroom. Only when his mother's or sister's

house lacks male labour does he care for the cornfield of his blood-relationship group. The economic group is the household that lives together, the old grandmother and her husband, her daughters and their husbands. These husbands count in the economic group, though in the ceremonial group they are outsiders.³¹

The susu exists because it offers certain advantages in which the conjugal family is weak. Yet the conjugal family enjoys a definite preference over the susu in the choice of mankind. The conjugal family is universal; the susu is not.

What is defective or objectionable in the susu? The answer will be found in the incest tabu. The basis of the susu is the sibling bond of brother- and sisterhood. Yet all societies find it necessary to tabu sex relations between brother and sister, often manifesting extreme anxiety over the consequences of incestuous relationships. The susu encourages emotional and functional ties between a pair who must never become sexually involved with each other. This is dangerous business, so much so that many societies apparently prefer to avoid it altogether. Even in Dobu a man may not enter his sister's house. As an additional factor, the splitting of loyalty between susu and conjugal family may produce personal and cultural conflicts that are difficult to resolve. Meyer Fortes observed that, "Ashanti discuss the subject interminably, stressing especially the inevitability of conflicting loyalties. For a woman the conflict turns on the difficulties of reconciling attachment to her mother with her duty to her husband."³²

In a social system in which the susu is an important functioning unit, the woman who has few sisters but many brothers is certainly more apt to be better off than a woman who has several sisters and but one brother, for as Malinowski has written of the Trobrianders, ". . . the more brothers the merrier for each sister, the more sisters the less endowment for them."³³

SUMMARY

The conjugal family is the elemental, universal kinship group: it relates the complementary roles of paired mates and of adults to their offspring. It is the organization which in conjunction with marriage makes a major contribution to the stabilization of sexual activity; and it provides the primary means for nurture and training of the young.

An individual is born into a primary conjugal family and, upon mar-

³¹ Benedict, *op. cit.*, pp. 75-76.

³² M. Fortes, "Time and Social Structure: An Ashanti Case Study," in M. Fortes (ed.), *Social Structure*, p. 75.

³³ B. Malinowski, *Coral Gardens and Their Magic*, Vol. 1, p. 189.

riage, establishes a secondary conjugal family. The quality of the secondary conjugal family is strongly influenced by the residence rules of the culture, which may be virilocal, uxorilocal, avunculocal, bilocal, or neolocal.

Most cultures allow polygamous marriages, which result in composite conjugal families. In any society, however, only a minority of families is ever polygamous. Polygyny is much more common than polyandry. Wife hospitality is not a manifestation of promiscuity or sexual communism; it reflects a sentiment that brothers, as members of a close-knit kinship group, share rights in common, which may be extended to the sharing of wives. It is, therefore, a gesture of brotherhood, a symbolic identification of the guest as a member of his host's kinship group.

The kindred is a bilateral extension of relationship to include close relatives who act together in ceremonial and other activities. Unilateral identification of kinship may produce two major types of "families": (1) the composite unilineal family, or joint family, and (2) the *susu*, or matrilineal family. The first is a residence unit; the second may or may not be. The composite unilineal family is a localized sublineage, plus the wives or husbands of its married members. The *susu*, although unilateral, exists on a lower level than the lineage. Lineages are extended kinship groups which include tertiary relatives; the *susu* is limited to primary relatives only.

Joint families and *sususes* exist as complements to the conjugal family. They may take over some of its functions and activities, but they never wholly replace it.

SELECTED READINGS

- Belo, J.: "A Study of a Balinese Family" (*American Anthropologist*, Vol. 38, 1936), pp. 12-31. An account based upon firsthand observation.
- Fortes, M.: *The Web of Kinship Among the Tallensi*, Chapters 6 and 8, entitled "Husband and Wife in the Structure of the Family" and "The Relationship of Parent and Child." An excellent study.
- LaBarre, W.: *The Human Animal*. Brilliantly written, this book presents a biosocial theory of the development and essential nature of family relationships.
- Mead, M.: *Male and Female*. A provocative and interesting synthesis of the author's field studies and views on family relationships in seven primitive cultures and the United States.
- Vogt, E.: "Three Navaho Households" (*Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University*, Vol. 50, No. 3, 1953).

CHAPTER 19. The Extension of Kinship: Lineage, Clan, Moiety, and Phratry

THE conjugal family, as noted in the previous chapter, is always embedded within a series of larger kinship groupings. These may be the kindred, on the one hand, or some form, or forms, of a unilaterally extended kinship group.

THE UNILATERAL PRINCIPLE

A unilateral kinship group is one that is organized through identification with only one line of relatives, either through males or females. If the identification is through males, the system is *patrilineal*.

In a patrilineal system the children of both sexes belong to the group of their father, which is, in turn, the group of his father's father, his father's father's father, and so on, as far back as genealogies are kept. The children of the man's sons, and the sons' sons, and so on, belong to the same group, as long as the line does not die out or break up.

In a matrilineal system the children of both sexes belong to the group of their mother, which is, in turn, the group of her mother's mother, her mother's mother's mother, and so on, as far back as genealogies are kept. The children of the woman's daughters, and the daughters' daughters and so on, belong to the same group, as long as the line does not die out or break up.

Each unilateral kinship group is a collective body, a corporate entity, that endures through the ages. It may have a definite beginning, but it has the potential of unending endurance—unlike the conjugal family.

Unilateral kin membership is, therefore, a matter of predetermined social heredity. You do not join a unilateral group, for it is not a voluntary association. You are born into it perforce. The social fiction of adop-

tion may make possible a change of unilateral affiliations, however, for adoption establishes a relationship as being factually real when it actually is not. Nevertheless, on the basis of the fiction, the foster relatives and the principal behave as though the relationship is what they pretend it to be. They assume a fictional relationship status and then enact the roles that go with those statuses. The possibility of adoption into a unilateral group notwithstanding, a person is ordinarily born, lives, and dies in just one unilateral group. Only in rare societies does a woman join her husband's unilateral group on marriage.

Unilateral group membership is discriminating and exclusive. It arbitrarily segments the population of a tribe; artificially it separates genetic relatives one from the other. In compensation it cements the genetic relatives that are included within the unilateral group into a firmer bond of kinship than is possible through bilateral extension of the family.

A further consequence of the inclusive-exclusive character of unilaterality is the sharp division it makes among cousins. Cross-cousins can never belong to the same unilateral group, although parallel-cousins may. This is what makes cross-cousin marriage possible.

The unilateral principle is thus really quite a remarkable invention, and its functional contributions to social organization are so great that three-fourths of the societies of men make it a fundamental principle with which to build their cultures.

All societies are internally segmented. That is, they are subdivided into infrasocietal groups each of which has common characteristics that it does not share with the members of other subgroups. The universal distinctions for the formation of such groups are sex, age, marriage, and kinship. As a society develops its culture and expands in numbers, territorial distinctions give rise to local groups within the society. In populations beyond a few hundred, bilateral extension of kinship becomes so clumsy as to be unworkable, unless, as in highly developed civilizations, the activities and functions of kinship groups are taken over by other social agencies, such as government, church, labor unions, insurance companies, and philanthropies.

In terms of sheer numbers, consider how many primary, secondary, tertiary, and distant relatives a person may possibly have. *Primary relatives* are those who belong to a person's primary and secondary conjugal families: father and mother, brothers and sisters, husband or wife, sons and daughters—a handful ordinarily. *Secondary relatives* consist of the primary relatives of a person's primary relatives, such as grandparents, uncles and aunts, half brothers and sisters, stepparents, brother- and sister-in-law, grandchildren, etc. There are thirty-three possibilities for different kinds of relatives of this order. Because anybody may have several or more relatives in each category, the kindred of primary and secondary relatives can potentially include several hundred persons. But kinship is normally

extended to embrace *tertiary relatives*: primary relatives of a person's secondary relatives who are not at the same time his own primary relatives. Here you have great-grandparents, great-grandchildren, first cousins, wives and husbands of secondary relatives, etc., etc. Murdock has calculated that there are 151 possibilities of this order. Remembering that a person can have a number of relatives in each of these possibilities, the total in the kindred begins to push into the thousands. Beyond the tertiary degree will be many more, increasing geometrically. The whole becomes so unwieldy as to be flaccid in its extremities. Furthermore, the kindred of each person is different from that of every other. The whole business quickly is at sixes and sevens. For, as Professor Murdock sums it up,

A particular disadvantage of the kindred appears in the instances in which an individual belongs to the kindreds of two other persons and thereby becomes involved in conflicting or incompatible obligations. If they get into serious difficulties with one another, for example, he may be required to avenge the one and yet to defend the other. If they become estranged, both are likely to turn to him for support and to subject him to emotional conflict and strain. The reader can supply numerous examples from the rankling family quarrels in our own society. In a tribe segmented into lineages, sibs, or moieties, however, the individual knows exactly where he stands in such instances. If both disputants are members of his own kin group, he is expected to remain neutral and to use his good offices to compose their differences. If neither is a member, the affair is none of his business. If one is a member but the other is not, he is expected to support his sibmate, regardless of the rights in the matter. In short, most conflict situations are simply and automatically resolved.¹

In ceremony, economic activity, legal fracas and dispute, inheritance, and marriage, as these are related to kinship, the place and roles of members of unilateral groups are clearcut. It is said that you cannot nail a custard pie to the wall. That goes for the extended bilateral kindred. But the unilateral group has firmness and body. When nailed, it stays put.

LINEAGE

The *usu*, discussed in the last chapter, is an incipient matrilineal lineage. It is not a true lineage, however, for the reason that it is limited to primary relatives (brother, sister, and sister's children). A lineage is an extended unilateral kinship group descended from a known ancestor, or founder, who ordinarily lived not more than five or six generations back. He, in the case of the patrilineage, or she, in the case of the matrilineage, is a real person and not a mythological or legendary figure.

A lineage may or may not have a name. In societies in which lineages

¹ G. P. Murdock, *Social Structure*, p. 61.

do bear names, anthropologists were quick to recognize them. On hearing the label, they would ask what it meant. Then on discovering the lineage, they would investigate the nature of its activities, and so, for such societies the importance of lineages was quickly realized. But on the whole, too much attention was focused on clans. The reason for this is that clans almost always have names and not infrequently carry conspicuous ceremonial and political roles, whereas lineages frequently have no names and their activities do not obtrude upon the attention of an outside visitor unless he is trained to look for clues. Yet when the lineage is identified, it often emerges as a social group of tremendous importance.

Ruth Benedict, for example, in *Patterns of Culture* (1936), emphasized the importance of the matrilineal composite household in Zuñi, hardly more than implying that the composite unilineal household is but a segment of a lineage, which Prof. Fred Eggan in 1949, following Kroeber and Lowie, demonstrated, "provides a bridge between the household and the clan."² The manner in which Hopi lineage is expressed in kinship terminology is examined in Chapter 21.

Modern recognition of the lineage as a key structure in many social systems is due largely to the influence of A. R. Radcliffe-Brown and the work done in the field by anthropologists who were trained by him.

In social systems such as the Nuer and Tallensi of Africa, where populations are large, we find lineages within lineages within lineages.³ The highest order, which contains sublineages, is a *maximal lineage*. The lowest order, which has no sublineages within it, is the *minimal lineage*. Minimal lineages are discrete as against all other lineages. But on a higher level, the minimal lineages lose their identity which fuses within that of the maximal lineage, which in turn is discrete as against other maximal lineages.

CLAN

A clan is an enlarged unilateral kinship group that rests on the fiction of common descent from a founding ancestor who lived so far in the distant past as to be mythological. Apart from size, the only essential difference between a lineage and a clan is that the members of a lineage can *actually* trace out their genealogies of common descent from a known ancestor, while clan members cannot. Nevertheless, if they belong to a given clan, people *believe* they have common descent and their behavior is regulated accordingly.

Very often, however, the folklore of the clan includes a myth purport-

² F. Eggan, *Social Organization of the Western Pueblos*, pp. 176-202.

³ E. E. Evans-Pritchard, *Kinship and Marriage Among the Nuer*; M. Fortes, *The Dynamics of Clanship Among the Tallensi*.

ing to give a truthful account of how the clan came to be. Thus among the patrilineal Dahomey of West Africa, one clan was founded by the son of a horse "who, bounding from the water in a fury of passion, lay with a woman on the bank of the river." Another clan is said to have descended from the "offspring of a woman and a pig, another from that of a woman and a toad, one from that of a woman and a dog, and the royal family . . . originated from the mating of a female leopard with the King of Adja." Another clan is said to have been created when a peanut was transformed into a man by magic, who then mated with a poor woman who lived on roots. Herskovits, who is the outstanding American authority on African peoples, says that the members of the Peanut clan lack the fine smooth skin of other Dahomeans, "It is rough like the shell of a peanut." Further, the members of the Peanut clan are said to be recognizable on sight.⁴ How this can be genetically possible in view of clan exogamy is a little difficult to understand.

The members of a Dahomean clan have a rather special set of attitudes toward the animal or plant creature who begat their clan founder. All clans revere their clan founder and his descendants, who are their ancestors. All Dahomean clans except one abjure the flesh of the animal species associated with the founder, and many of them bear the name of the founder. All these features give the clans a totemic tinge.

The usages of the Crow Indians illustrate a different kind of clan origin legend. The clan names are taken from certain alleged exploits of the founders, after the manner of Plains Indian warriors, who bestow names on children to memorialize some outstanding events in the warrior's life. It would be quite a mistake if you were to jump to the conclusion that the Crow "Greasy-inside-of-their-mouths" clan were slippery tongued, for the name is actually honorific. The clan founder was such a provident hunter that he was always surfeited with rich fat meat. His mouth was so coated with fat that when he spat in the campfire, his saliva flared up in the flames! Other Crow clan names memorialize alleged historical incidents or characteristics. The Piegan clan was originally called "They-eat-their-own-mucus," which may or not have been a praiseworthy accomplishment from the Crow point of view, but when these people once abandoned a wounded comrade in battle, they were henceforth dubbed "Piegan," meaning that they acted like the Piegan enemies, which was certainly *not* a praiseworthy epithet from the Crow point of view.⁵

In all these and similar instances, which could be drawn from a multitude of tribes, the actual origin of the clan is lost in the hoary past, but this is not the case with lineages.

⁴ M. J. Herskovits, *An Outline of Dahomean Religious Belief* (American Anthropological Association, Memoir 41, 1933), pp. 24-27.

⁵ R. H. Lowie, *The Crow Indians*, pp. 15-16.

Lineages may exist with or without clans. Clans may also exist with or without institutionalized lineages within them. Iroquois clans are made up of related groups of maternal lineages; the lineages are localized for the most part in long-house groupings. Very often lineage heads constitute the clan council, if there is a clan council. In most parts of Indonesia lineages are the basic functional group, for lineages or subclans form the localized village, while the clans have a more regional character.

MOIETY

Reciprocity is the basis of all social relationships, for there can be no social relations without interaction. Human beings are so constituted that the isolated person is not a complete man. They are also so constituted that dependence without interdependence is not readily or for long accepted by the giver of services. He who gives would also receive. Through the building of a network of giving and receiving of services a society expands its potentialities.

The principle of reciprocity is, therefore, operative in all societies. However, some societies are content to leave it implicit in their cultures without placing much formal emphasis upon it. Others, such as the Trobrianders and many other Melanesians, go to great lengths in institutionalizing reciprocity and throwing it into the spotlight of social awareness.

One of the most effective ways of institutionalizing reciprocity is to organize the society on a moiety basis. This is done by dividing the society in two equal halves, or moieties (Fr. *moitié*, half), to produce a system known as *dual division*. Moieties are exogamous with few exceptions (viz., endogamous Toda moieties); each moiety supplies the other with its marriage partners. Other reciprocal services are invariably linked to the moiety alignments. Moieties thus effectively control certain types of behavior and serve to give concrete form to the reciprocity principle.

In cases where there are only two clans in a tribe, as the Water and Land groups of the Central Miwok in California, clan and moiety are automatically synonymous. Multiple clans are the more common order, however, and when clans are linked to moieties, the moiety is the larger unit and the clans are subdivisions of the moieties. Most of the Iroquois tribes have this kind of arrangement. Among the Seneca, to take a typical example, the Bear, Wolf, Turtle, and Beaver clans are aligned vis-à-vis the Deer, Snipe, Heron, and Hawk. Originally, the moieties were exogamous, but in recent centuries they have lost their control over marriage, and only the clans have retained the exogamous rule. Each moiety performs the important mourning rituals on behalf of the other; the moieties compete against each other in the old Indian game of lacrosse,

which is as much a ceremonial ritual as it is a sport. On the other hand, they do not enter into the political structure, although clans and lineages do.

Many American tribes with moieties associate them with the duality of the cosmos: Sky and Earth, Water and Land, Winter and Summer, Red and White (War and Peace). This may be seen as just another way of objectifying the principle of reciprocity in the minds of the people.

Although Morgan assumed that moieties precede clans in historical development, Lowie has rightly concluded that either one may precede the other, dependent on circumstances.⁶

PHRATRIES

Phratries (Gr. *phratia* brother) are groups of linked clans, where there are more than two such linked groups in the tribe (if there were only two, they would be moieties). The clans in a phratry system retain their separate identities, but each clan in a phratry feels some sort of special identity to the others within its phratry. Moreover, they may have special obligations to fulfill toward each other.

The Hopi Indians have a large number of matrilineal clans, which are loosely linked into twelve exogamous phratries. The Aztecs, for their part, had four phratries embracing twenty clans among them. The Aztec phratries were important political and religious divisions in the structure of the empire, and they thus played a truly significant part in the social life of the people.

Nevertheless, it may be said in general that phratry organization is a relatively rare and functionally insignificant phenomenon. It does not usually control marriage, although Crow Indians think that it is better if members of the same phratry do not intermarry. Still, they have no prohibition against such action. For the most part, the phratry sentiment seems to rest either on a tradition of common origin or common interests in ceremonial activity.

THE FUNCTIONS OF CLANS

Mutual Aid and Security. The clan provides a large mutual-aid organization on the footing of kinship. Man never stands alone. In seeking a firmer base for personal security than he can find without organization of his efforts and those of his fellow men, he casts about for some valid interests of common concern that will serve to join him in social communion with others. There can be no doubt that the most generalized

⁶ R. H. Lowie, "Some Moot Questions of Social Organization" (*American Anthropologist*, Vol. 36, 1934), pp. 321-330; *Primitive Society*, pp. 130-137.

interest served by the clan is that of subserving the desire for security. The family, as we noted earlier, is the incubator of personal security par excellence. The clan expands this fundamental function of the family by broadening the base in numbers of persons involved, while at the same time tightening up the structure by turning away from the diffusive effects inherent in extension along bilateral lines.

To meet the needs of security, clans always present a solid front to the rest of the world. In their personal interrelations with all persons outside the clan, every clan member must be aided, abetted, and protected at all hazards. From the implicit maxim that clan brothers should be helpful to each other, the principle of mutual aid and solidarity develops to the principle of collective protection and its counterpart, collective liability. Motivated by the urge to provide personal security, clans move to punish wrongs and injuries suffered by any member as though all members were injured by the act. "Strike my clan brother and you strike me" is the challenge the primitive clansman hurls at all comers. "The blood of the clan is my blood" is another precept of his code. The clan moves as a unit to wreak vengeance when murder has been done. The individual is strengthened in the secure knowledge that even though he may be wrong, his clan will stand behind him.

As a complement of its united protection of individual members, the clan is almost always collectively liable for the acts of its members. Thus, if a clansman commits murder, vengeance may commonly be taken on any member of the clan, for even though innocent in fact, his person is merged in that of all his fellow clansmen.

Legal. The security function of the clan inevitably leads it into the legal arena. In view of this, we may say that a second universal function of the clan is to operate as a legal instrument in the system of tribal law.⁷

Control of Clan Members. Anthropologists have recorded many instances in which a clan has cast out the black sheep who is a continuous troublemaker. After all, clan solidarity cannot be a means of unbridled license for irresponsible individuals. For the incorrigible rascal, clan disowner is tantamount to the death sentence in many societies, for then the outcast may be assaulted with impunity. There is no protection for him outside the clan.

Extrusion from the clan may come not only from having caused the clan too much trouble vis-à-vis other clans, but also from persistent refusal to carry out one's cooperative obligations within the clan. Hogbin cites a case from Ontong Java in the South Seas that shows how both impulses may be combined to form the straw that breaks the camel's back.

⁷ See Chap. 28 for further discussion of the clan in law.

Two brothers were once reprimanded by their headman for something they failed to do. Instead of taking this to heart they began to abuse him. . . . Soon afterwards one of the brothers was found to have committed adultery with the wife of an important man of the tribe. The headman, not wishing any of his people to be involved in the defence, formally declared both brothers to be forever severed from their kindred, although only one of them was responsible for the trouble. The injured man was then able to take vengeance, for he was sure that none of the relatives would come to the assistance of the culprit.⁸

It is often said that a clan cannot take legal action against its own members. The old adage goes, "A clan cannot proceed against itself." However, it would be the height of foolishness to let this blind us to the fact that the clan must be able to control and shape the behavior of its members in intraclan relations.

Not all clan systems have explicit leaders or councils with directive powers. The Crow Indians, for instance, do not. But it certainly seems, in the absence of any statistical tabulations, that most clans have at least a headman with directive or even disciplinary powers, while some clan systems provide for a council of clan elders (usually family or lineage headmen) with executive and quasi-judicial powers, as we saw in the Ontong Java case.

Exogamy. A fourth universal function of the clan is to regulate marriage by means of exogamy. This, if we follow Malinowski's hypothesis, is a self-protective device to ensure clan solidarity by directing the sexual drive toward persons outside the essential kinship group. We would do wrong, however, to overlook the fact that an additional security device is to be found in clan exogamy. Marriage imposes affinal obligations on the spouse's kin and clan. It tends to reduce overt aggression between the maritally allied groups; it also extends the base of support a man may count on.

Government. Another function that the clan may take on is that of government. The twenty Aztec clan heads, called *speakers*, made up the Aztec tribal council. This group controlled ordinary political decisions, made war and peace, and as a judicial body decided disputes between clans and members of different clans. These same clan speakers sat on the grand national council, whose jurisdiction covered the most important law cases and election of the king. Aztec clans were grouped in four phratries, each of which had a captain-general, who served as a high-ranking military officer and in addition to his military post served on the grand national council.

Many tribes have raised one clan to the position of royalty, and the hereditary chief must come from this clan. In Melanesia this is true of

⁸ H. I. Hogbin, *Law and Order in Polynesia*, p. 135.



Fig. 19-1. Masai clan members at selection of a chieftain. (*British Information Service.*)

the Trobriand Islanders, and in Africa the Dahomeans and Ashanti provide two examples among many.

Among the American Indians the Winnebago of Wisconsin assigned political functions to seven of their twelve clans. The tribal chief was selected from the Thunderbird clan. In addition, this clan had important functions connected with the preservation of peace (its governmental functions were mainly civil). The Warrior clan, as its name implies, provided war leadership; the village and hunt policemen came from the Bear clan; and the camp crier and aide-de-camp for the chief was always selected from the Buffalo clan. The Wolf, Water-spirit, and Elk clans had less important political assignments. Not only was this true of the Winnebago, but also of the other highly organized Siouan tribes.⁹

Property. Among clan-organized tribes practicing hoe culture, the garden lands are almost inevitably owned or administered by the clans. Aztec clans each owned its segment of the land. Assignments for use were made by the clan headman, who kept a record of all holdings. Every family head had the right to a plot of land (unless he had forfeited his clan membership for refusal to marry or carry out his clan obligations, in which case he became a common proletarian laborer). As long as a clansman was in good standing, he could use his land or rent it to a fellow clansman (but not to an outsider). He could allot it to a clan descendant by testamentary disposition, but he could not alienate it (i.e., pass title to an outsider), for ownership of title was vested in the clan.

⁹ P. Radin, *The Winnebago Tribe* (Bureau of American Ethnology, Annual Report 37, 1923).

He had what a lawyer would call a *possessory right of usufruct*, but not ownership. This same land-use system by clans prevails throughout Indonesia at this very time; it is also prevalent in Africa.

Clans may own other material goods in common, such as temples, meeting houses, and sacred and ceremonial objects.

Religion and Ritual. Among the ancestor-worshipping Africans who have clan organization, the deceased clan ancestors are elevated to the status of clan deities. The clan head is usually the chief priest of the clan and the intermediary between his kinsmen and the ancestral spirits.

Among the Hopi and Zuñi, to take another example, the all-important ceremonial organization is inextricably intertwined with the clan system; each clan must perform its part of the ceremonial activities for the benefit of the whole pueblo. Winnebago clans possess sacred bundles of religious paraphernalia that are used in ceremonial activity.

Finally, clans may have totemic associations involving a feeling of identity with a plant, animal, or other natural object. This bond of emotional identity may extend from a mere feeling of kinship to actual reverence and worship. It may also lead to symbolic representation of the totemic object in clan fetishes.

To summarize the functions of the clan, we may say that the clan as an institution has two universal functions: (1) to broaden the base of the security group founded on the kinship bond by providing mutual aid and collective protection and liability in legal action and disputes; and (2) to regulate and control marriage.

Beyond this the clan is capable of taking on a variety of secondary functions, which it may assume or abjure, depending on the historical development of the culture. These functions are (1) legal, (2) governmental, (3) economic, (4) religious and ceremonial, and (5) totemic. Furthermore, clans may be localized or their members may be scattered in different communities throughout the society.

DOUBLE DESCENT ¹⁰

Until quite recently anthropologists thought that a society could embrace only one clan system, which had to be either matrilineal or patrilineal. Evidence to the contrary first came to the attention of English-reading anthropologists in R. S. Rattray's studies of the Ashanti, who were shown by this keen student of African tribes to have matrilineal clans called *abusua* and patrilineal groups called *ntoro*. The *ntoro* principle of inheritance is associated with the semen, and although the *ntoro* group is not organized, it, like the *abusua*, regulates marriage and sets

¹⁰ Also called *bilineal descent*.

certain incest prohibitions. It is totemic and imposes certain food tabus on its members.¹¹

A subsequent report by Forde on another African tribe (the Umor) analyzes an even more precise system of dual descent.¹² The Umoran patrilineal, virilocal clan determines house and land affiliation and is called the *kepun*. Of these there are twenty-two. At the same time there are four *yajima* (plural form), matrilineal, nonlocalized clans through which movable property—principally livestock and currency—is inherited and marriage exchanges (progeny price and dowry) are made. “A man eats in his *kepun* and inherits in his *lejima* [singular form],” is the native adage.

Herskovits has indicated that double descent is probably quite widespread in West Africa. Australian class systems of marriage combine matrilineal moieties, which are unnamed, with patrilineal clans.¹³ Murdock has thrown the phenomenon into focus by showing that double descent has a widely scattered distribution in Africa, India, Australia, Melanesia, and Polynesia.¹⁴

That it took English-speaking anthropologists so long to discover double descent shows how difficult it is for even carefully trained scientists to formulate conceptions necessary to the perception of new facts when those facts are too alien to their experience and cultural background.

LINEAGE AND CLAN IN SOCIAL DEVELOPMENT

When anthropology was young, a major problem of its concern was: which came first, the matriarchate or the patriarchate? Forty years ago the battle was still waged with heat. Today a calm peace has settled over the once discordant area over which the cries of conflict raged. Fact has settled the dust of theoretical confusion. The issue has been decided—in favor of neither.

Bilateral, patrilineal, matrilineal, and double-descent extensions of the kinship group appear on *all* levels of cultural development and in all the major geographic areas of the world.

¹¹ R. S. Rattray, *Ashanti; Ashanti Law and Constitution*. Dual descent as found in a neighboring people is explicitly examined in detail in a monograph by J. B. Christensen, *Double Descent Among the Fanti*.

¹² C. D. Forde, “Kinship in Umor—Double Unilateral Organization in a Semi-Bantu Society” (*American Anthropologist*, Vol. 41, 1939), pp. 523–553.

¹³ R. H. Lowie, *Introduction to Cultural Anthropology*, offers a simple analysis of the system as exemplified by the Murngin tribe.

¹⁴ G. P. Murdock, “Double Descent” (*American Anthropologist*, Vol. 42, 1940), pp. 555–561.

Among the most primitive or culturally undeveloped tribes . . . , the Andamanese pygmies, the Paiute of the Great Basin, and the Yahgan of Tierra del Fuego are bilateral in descent, the Vedda of Ceylon, the Rankokamekra of east-central Brazil, and the Kutchin of northern Canada are matrilineal, and the Witoto of Amazonia, the Gilyak of Siberia, and the Miwok of California are patrilineal, while several native Australian tribes are characterized by double descent. All rules of descent are likewise well represented on the intermediate levels of culture, among agricultural and developed pastoral people. Even among literate peoples with relatively complex civilizations, our sample includes the bilateral Yankees and Syrian Christians, the patrilineal Chinese and Manchus, and the matrilineal Minangkabau Malays of Sumatra and Brahman Nyars of India.¹⁵

What has emerged is that the type of basic residence pattern is the major factor determining the kind of kinship extension that is built into a culture. Residence patterns, in turn, are strongly influenced (albeit not necessarily absolutely determined) by the kinds of subsistence activity that dominate the daily lives of a people. But, still, many combinations of factors work to produce the final results.

SUMMARY

The boundaries of kinship are never limited to the primary and secondary conjugal family, for these are invariably embedded in a larger web of kinship.

Bilateral extension of kinship runs into inherent difficulties as soon as populations begin to get at all large. When extended beyond three degrees, it embraces so many persons as to become unwieldy in size. But even more fatal is the fact that each person must belong to a number of such extended groups, and is faced with the problem of conflicting loyalties. Many primitive societies have therefore found it expedient to utilize the unilateral principle for extended kinship reckoning. The unilateral principle has certain inherent advantages. It automatically cuts down the numbers of potential members of the group by including only one-half of a person's relatives. Above all it clearly establishes identity with one, and only one, kinship group of a given type, thereby eliminating the problem of conflicting loyalties.

Types of groups formed on the unilateral principle are: the lineage, clan, phratry, and moiety. Whether the matrilineal or patrilineal pattern prevails in a given culture is strongly influenced by the residence customs: uxorilocal, virilocal, avunculocal, neolocal, or bilocal. Residence,

¹⁵ Murdock, *op. cit.*, p. 186.

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in turn, is strongly influenced by the type of dominant subsistence economy in a culture.

SELECTED READINGS

Fortes, M.: "Structure of Unilinear Descent Groups" (*American Anthropologist*, Vol. 55, 1953), pp. 17-44. A most excellent exposition of the application of the unilinear principle in primitive cultures.

———: *The Web of Kinship Among the Tallensi*, Chapters 1, 5, and 11, entitled "Kinship and the Lineage System," "Parents and Children in the Framework of the Lineage," and "The Web of Extra-Clan Kinship." A masterful analysis of the complexities of kinship in an African tribe.

Keesing, F. M.: "Some Notes on Bontoc Social Organization" (*American Anthropologist*, Vol. 51, 1949), pp. 578-600; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 173-189. Kinship and community patterns in Northern Luzon, the Philippines.

Lowie, R. H.: *Primitive Society*, Chapter 6, entitled "The Sib." Although this contains some discussions of problems that are no longer live issues in anthropology, the chapter is highly informative.

Murdock, G. P.: *Social Structure*, Chapters 3 and 4, entitled "Consanguineal Kin Groups" and "The Clan."

Radcliffe-Brown, A. R., and M. Fortes (eds.): *African Systems of Kinship and Marriage*.

CHAPTER 20. Kinship Systems

BEHAVIOR toward relatives is not the same as behavior toward nonrelatives. Rich uncles win special deference. A person always owes certain obligations to his kinsmen. The status of a relative is unique as against the rest of mankind.

As a striking manifestation of this fundamental fact, that keen student of African social life, E. E. Evans-Pritchard, observes,

If you wish to live among the Nuer, you must do so on their terms, which means that you must treat them as kinsmen and they will treat you as a kind of kinsman. Rights, privileges and obligations are determined by kinship. Either a man is a kinsman, actually or by fiction, or he is a person to whom you owe no reciprocal obligations and whom you treat as a potential enemy.¹

Because we live in an industrialized society of great social mobility, in which we depend to a great degree upon our own efforts and those of mutual-aid associations (insurance and benevolent societies), unions, and philanthropic and governmental agencies to provide social security, rather than our relatives, it is hard for most of us to comprehend the importance of kinsmen in simpler societies. In primitive society most of these responsibilities rest with the kinship group.

The contrast is philosophically stated by an old Pomo Indian of California, who soliloquized,

What is a man? A man is nothing. Without his family he is of less importance than that bug crossing the trail, of less importance than the sputum or exuvial. At least *they* can be used to help poison a man. A man must be with his family to amount to anything with us. If he had nobody else to help him, the first trouble he got into he would be killed by his enemies, because there would be no relatives to help him fight the poison of the other group. No woman would marry him. . . . He would be poorer than a new-born child, he would be poorer than a worm. . . . The family is important. If a man has a large family, . . . and upbringing by a family that is known to produce good children, then he is somebody and every family is willing to have him marry

¹ *The Nuer*, p. 182.

a woman of their group. In the White way of doing things the family is not so important. The police and soldiers take care of protecting you, the courts give you justice, the post office carries messages for you, the school teaches you. Everything is taken care of, even your children, if you die; but with us the family must do all of that.

Without the family we are nothing, and in the old days before the White people came, the family was given first consideration by anyone who was about to do anything at all. That is why we got along. . . .

With us the family was everything. Now it is nothing. We are getting like the White people and it is bad for the old people. We had no old people's home like you. The old people were important. They were wise. Your old people must be fools.²

The patterns of kinship behavior are only in slight degree biologically determined. Kinship relations consist of the interacting roles that are customarily ascribed to the different statuses of relationship by a people. Every culture includes a set of words, or labels, that symbolize each of its kinship statuses. These labels are called *kinship terms*, and the whole is called the *system of kinship* (or *relationship*) *terminology*.

The first important principle to grasp in the study of kinship systems is that *no system provides a separate and distinct term for every possible kind or position of genealogical relationship*. All systems equate, lump, or merge some relatives of different genealogical positions into one single category, which is identified by a specific term. For example, the Comanche Indians equate father, father's brother, and mother's sister's husband all under one term, *ap'*. Father's brother and mother's sister's husband (both of whom we call *uncle*) are genealogically distinct from father, but to the Comanche they are terminologically identical. Similarly, a Comanche calls his own son, his brother's son, his wife's sister's son, and his sister's daughter's husband all by the selfsame name, *tua*. All these persons are merged or equated under the same identifying term of relationship.

Kinship terms which result from merging are called *classificatory terms*.

A kinship term which applies to a particular genealogical status and no other is called *particularizing* or *descriptive*. We, for instance, tend to apply the terms *father* and *mother* only to our actual progenitors when referring to relatives. However, as no system is ever wholly particularizing or classificatory, we also have certain classificatory terms, such as *cousin*, *uncle*, *aunt*, *niece*, *nephew*, *grandfather*, *grandmother*, *grandson*, and *granddaughter*.

Our insistence on particularizing *father* and *mother* is sociologically significant. For it will be noted that in addition to particularizing *father* and

² B. W. Aginsky, "An Indian's Soliloquy" (*The American Journal of Sociology*, Vol. 46, 1940), pp. 43-44.

mother, we use the words *son* and *daughter* to mean only our own children and not those of our brothers or sisters.³ Likewise, we use the terms *brother* and *sister* to refer exclusively to the siblings of our own primary conjugal family. Other relatives of our own generation level we call *cousins*. Our terminology thus places strong emphasis upon the exclusiveness of our primary conjugal family; it rigidly distinguishes more remote relatives. This reflects the great social significance of our close relatives in the conjugal family as against the rest of our larger kindred. Lineal relatives are more important to us than collateral ones.

In most primitive societies, as we have noted, extended kinship groups play larger roles than is the case with us. In such societies, merging or lumping of relatives on a collateral basis is, therefore, much more likely.

Since kinship terms designate social statuses, what you must call a person ideally determines how you must behave toward him. Further, all persons who are called by the same kinship term should (and again, ideally) receive the same sort of treatment, since they enjoy ideologically identical statuses in the system of social organization.

COMANCHE KINSHIP

It will help to get the feel of kinship if we briefly explore the way in which relatives are grouped and identified in a few systems other than our own. To do this, we shall begin with a look at the way the Comanche Indians classify relatives.

Comanche social structure is bilateral and bilocal. Polygynous marriages are permissible. The Comanche kindred is exogamous; no one may marry a relative within three or so degrees of recognized relationship.

In treating any system of kinship terminology it is necessary to have a starting point in a particular individual. This person is called *ego* (L. *ego*, I). We will start with ego as a male, for it makes a difference whether a man or a woman is speaking.

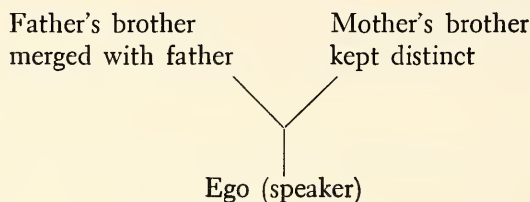
Ego calls his mother *pia*. But there are also other female relatives called *pia*: namely, his mother's sisters, his mother's female cousins, and his father's brother's wife. *Pia* can thus be seen to mean not "mother" to a Comanche, but more exactly, "female relative of my mother's generation and kindred."

His father he calls *ap'*. But there are also other male relatives called *ap'*: namely, his father's brothers, his father's male cousins, and his father's sister's husband. *Ap'* thus does not mean "father" to a Comanche, but "male relative of my father's generation and kindred."

³ Cf. A. M. Hocart, "Kinship Systems," in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 189-193, for an explanation of how such terms should be conceived.

The Comanche calls his mother's brother by a different term, *ara*. Thus, where we merge father's brother and mother's brother together as *uncle*, the Comanche merges father and father's brother in one category, while distinguishing mother's brother in another.

The same thing is done with aunts. Mother and mother's sister are both classified as *pia*, but father's sister is distinguished as *paha*. This practice is called *forked merging*, or *bifurcate merging*.



[Members of the parental and maternal kindreds are thus kept distinct.]

Within his own generation all relatives are "brother" and "sister" to a Comanche; cousins are not recognized as such. But relative age *is*, so the Comanche distinguishes between *paβi* and *tami*, "older male relative of my own generation" and "younger male relative of my own generation." A *paβi* may be ego's elder brother, father's brother's son, father's sister's son, mother's brother's son, mother's sister's son, *and* wife's sister's husband (if ego is a male), or husband's sister's husband (if ego is a female). *Tami* applies to all these categories, if the person referred to is younger than ego.

A "son" to ego includes not only his own boys, but the male offspring of all his *paβi* and *tami*, the sons of his wife's sisters, and his sister's daughter's husband. All these are called *tua*.

A "daughter" includes his own female offspring and the female offspring of all his *patsi* (elder female relatives of his own generation) and *nam*i (younger female relatives of his own generation), his wife's sister's daughters, and his sister's son's wife. All these are called *pedi*.⁴

The kinship terms that have been described here cover the members of ego's primary and secondary conjugal families. Whereas, with us, we use exclusive, descriptive terms that isolate the two conjugal families, it may readily be seen that the Comanches merge such individuals within the larger kindred. For them the kindred is the socially more important group.

All in all, the Comanches recognize thirty-six different kinship categories, each of which has a different kinship term. None of them is identi-

⁴ For a full analysis of the Comanche system, see E. A. Hoebel, "Comanche and H3kandika Shoshone Relationship Systems" (*American Anthropologist*, Vol. 41, 1939), pp. 440-457.

cal to the groupings or distinctions drawn by us in our kinship system. *The way in which any society identifies relatives is dependent upon the nature of its kinship groups.* These, in turn, are predominantly determined by the rules of residence and subsistence practices that prevail in the culture.

PRINCIPLES OF KINSHIP IDENTIFICATION

Five decades ago Kroeber⁵ identified eight principles of kinship distinctions that may be seized upon in shaping a kinship system. These eight principles of distinction are as follows:

1. Difference in generation levels (father, son; grandparent, grandchild, etc.)
2. Difference in age levels within the same generation (elder and younger brother; father's elder brother, etc.)
3. Difference between lineal and collateral relationship (father, uncle; brother, cousin, etc.)
4. Difference in sex of relatives (brother, sister, uncle, aunt, etc.)
5. Difference in sex of the speaker (males and females may have two separate systems of terms)
6. Difference of sex of the person through whom the relationship is established (*father's* brother, *mother's* brother; *father's* father, *mother's* father; father's *father's sister's daughter's* daughter, etc.)
7. Difference between genetic relatives and those connected by marriage (sister, mother; husband's mother, etc.)
8. Difference in status or life condition of the person *through whom* the relationship is established (as being living or dead, single or married, etc.)

Few systems make use of all eight distinctions, but many primitives use the first seven.

If the reader will carefully examine the Comanche terms that we have given, he will be able to identify each of the first seven principles in them. Our own system, on the other hand, utilizes only four of the eight (1, 3, 4, 7).

TYPES OF KINSHIP SYSTEMS

It is a remarkable fact that although a very large number of differing kinship systems are theoretically possible, society after society classifies its kinsman in essentially similar ways, so that the types of kinship systems that actually come into existence are few in number.

⁵ A. L. Kroeber, "Classificatory Systems of Relationship" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 39, 1909), pp. 77-84.

Classifying (or typing) kinship systems presents all the usual problems of selection of criteria (see Chap. 3), and one gets more or fewer types, according to the quality and number of criteria used. The most significant criteria accepted by anthropologists generally are degree of generation merging, bifurcation of the parental generation, distinction of cousins from brother and sister, cross-cousin from parallel-cousin, and reciprocity (where people in two different statuses use the same term when speaking of each other as, for example, in Comanche where ego's term for mother's brother is *ara*, and mother's brother in turn calls his sister's son *ara* as well).

In this introduction to kinship we shall limit the discussion to Murdock's classification of types of kinship systems as formulated in his *Social Structure*. Most of the types identified by Murdock have been long established in anthropological literature; indeed, the basic Hawaiian type was first recognized by Lewis Henry Morgan nearly a hundred years ago. Each type has a number of distinctive characteristics, but Murdock, following the lead given by Leslie Spier⁶ in 1925, simplifies complexity by using the terminology for cousins as the basis of typology. It works well.

Murdock's classification sets up eleven types of kinship terminological systems. Of these, six are basic with respect to distinctions or lack of distinctions made in their terminologies for cousins. The other five are a product of combining criteria of descent reckoning with cousin terminology.

GROUP A	GROUP B
Hawaiian	Yuman
Eskimo	Fox
Iroquois	Guinea
Sudanese	Dakota
Omaha	Nakanse
Crow	

Cultures that include Hawaiian and Eskimo terminologies always have bilateral kinship groups. Sudanese and Omaha terminologies are linked to patrilineal systems. The Crow and Iroquois type of terminologies are found with matrilineal systems, and sometimes in those with double descent.

The Hawaiian System. The Hawaiian system is almost absolute in its classificatory emphasis. Basically, it sets up only five categories of kinship

Grandparent
Parent
Sibling
Offspring
Grandchild

⁶ L. Spier, *The Distribution of Kinship Systems in North America*, pp. 69-88.

Sex distinctions are made by use of modifiers to the root word for each generation term. Nearness of relationship is wholly ignored, and in terminology a remote cousin is as much a "brother" or "sister" as is a uterine sibling.

This system utilizes only two of the eight Kroeber principles: (1) difference in generation levels, and (2) difference in sex of relatives. Of these, Principle 1 is used throughout; Principle 2 is not emphasized. Because of its emphasis on generation equivalence, the Hawaiian system draws no distinction among cousins and siblings.

The Eskimo System. Eskimo systems draw no distinctions between cross- and parallel-cousins but do distinguish cousins from siblings.

The Iroquois System. In the Iroquois type of terminology, siblings and parallel-cousins of the same sex are usually equated under one term, whereas cross-cousins are distinguished by different terms.

The Sudanese System. This type is at the opposite pole from the Hawaiian, in that its terms are emphatically particularizing, or descriptive. Consequently, it has separate terms for each type of cousin, for siblings, and for aunts, nieces, uncles, and nephews.

The Crow System. The Crow system is based on a social structure that contains strongly developed matrilineal lineages and/or clans. In it, generation equivalence is ignored in favor of strong emphasis on Kroeber's Principle 3 (distinction of lineal from collateral relationship).

As far as cousin terminology goes, cross-cousins are distinguished from each other (i.e., there are separate terms for father's sister's son or daughter and mother's brother's son or daughter); these are also distinguished from parallel-cousins and from siblings. But paternal cross-cousins are not terminologically distinguished from father and father's sister.

It is in this last lumping of father's sister's daughter with her aunt that the lineage emphasis is made clearest. Hocart has shown us how earlier anthropologists were trapped into false conceptions of kinship by thinking only of such classificatory terms as *father* as meaning an extension of fatherhood. In the analysis of the Crow and Omaha systems in the previous edition of this book, an error of this nature was made by identifying the Crow Indian term, *birupxe*, as "father." *Birupxe* is the term applied to ego's father, father's brother, and father's sister's son (when ego is a male). Properly understood, it means not "father," but "male of my father's matrilineal lineage or clan." For the same reason the term used in reference to ego's father's sister means "female of my father's matrilineal lineage or clan." The term for *mother* means "woman married to a male of my own matrilineal lineage or clan."

Figure 20-1 diagrams this clearly.

In the previous edition, the preferred marriage of a man to his mother's brother's wife or, conversely, of a woman to her husband's sister's

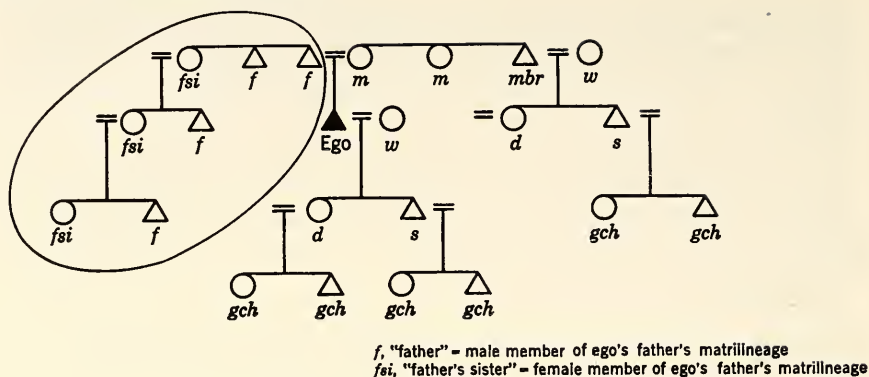


Fig. 20-1. Crow-type kinship identifications.

son was advanced as *the* causative factor for the terminological equations just mentioned. This explanation ignored two things: the Crow type of terminologies appear in cultures that do not include husband's sister's son preferential marriage, and such marriages are not likely to have a primary causative effect on kinship terminology, because they are *always* preceded by other kinds of marriage.

Professor Eggan's analysis of the Crow type of terminology of the Hopi Indians, in his masterful study published in 1950, provided a reorientation of approach to an understanding of the Crow system in terms of lineage influence.⁷ Husband's sister's son marriage is a consequence of the lineage grouping in Crow Indian culture, but it is not an inevitable outgrowth of such lineage groupings.

The Omaha System. The Omaha kinship terminology is a correlate of patrilineal emphasis leading to distinction of cousins identical with that of the Crow type, but with lumping of "father's sister's daughter" with "sister's daughter," and of "mother" with "mother's brother's daughter." In an Omaha system, the term for *mother* really means "woman of my mother's patrilineal lineage or clan," while that for *mother's brother* means "male of my mother's patrilineal lineage or clan." The term for *sister's daughter* means "daughter of a female of my father's patrilineal lineage or clan," and for *sister's son* means "son of a female of my father's patrilineal lineage or clan."

The American Kinship System. Our kinship system is of the Eskimo type. We lump all cousins, but we distinguish them from brothers and sisters. In the absence of lineages and clans, we show no lineal emphasis except within the primary and secondary conjugal families. These are sharply set off from the kindred by the exclusive limitation of terms like

⁷ F. Eggan, *Social Organization of the Western Pueblos*.

father, mother, brother, sister, son, and daughter to those who actually belong to the two conjugal families.⁸

Monogamy is reflected in the fact that the words *father, mother, husband, and wife* can apply to only one person within the kinship system. When these terms are used within the church system, they imply and evoke certain filial responses and behaviors that carry over from the kinship system, but no one makes the mistake of assuming that they imply genetic relationship! We see this also in the panhandler's claim to kinship assistance when he puts the touch with his plaintive, "Brother, can you spare a dime?" In college circles, we see it in the venerable and revered campus custodian, who is affectionately called "Dad," or the owner of a campus restaurant or pool hall, who performs the fatherly function of bailing out too exuberant students when they land in the town jail.

One thing that is genuinely distinctive about our kinship terminology is the abundance of alternative terms used in addition to *mother, father, husband, and wife*. For *father* these are "dad," "daddy," "pop," "pa," "old man," "boss," "pater," and "governor." None of these carry the respect connotations, however, of the word *father*. Their use varies in accordance with the authority roles acknowledged to the father by his children within the particular family, and they reflect the flexible nature of American family patterns. By and large, the term *daddy*, widely used by youngsters, is dropped by boys as they grow up, although it is often retained by daughters for many years. Father-son relations become more restrained and formal, whereas there is much evidence to support the inference that the persistence of the use of the word *daddy* by girls expresses a continuance of preadolescent affectivity between father and daughter.

A parallel series of terms exists for *mother*: "mom," "mommy," "mummy," "ma," "mama," "mater," and "old woman." Very similar role qualities are ascribed to these terms, as for the alternatives to "father." Both boys and girls tend to shift from use of informal mother terms to the more formal "mother" as they grow up. Boys, in other words, do not keep the familiar term for *mother* the way girls carry on with "daddy."⁹

Affinal relatives are all distinguished by means of the "in-law" suffix. However, we often use a device of teknonymy to soften the stiffness of the "in-law" term when addressing our mother-in-law and father-in-law. This is managed by identifying ourselves with our offspring and addressing our spouses' parents as "grandmother" and "grandfather." They are lineal

⁸ T. C. Parsons, "The Kinship System of the Contemporary United States" (*American Anthropologist*, Vol. 45, 1943), p. 24.

⁹ D. M. Schneider and G. C. Homans, "Kinship Terminology and the American Kinship System" (*American Anthropologist*, Vol. 57, 1955), pp. 1195-1199.

kin to our children, and so by this fictive device we draw them into our lineal family group.

Except for a slight linguistic emphasis given to the patrilineal line through patronymy, the consequences of which are more attitudinal than structural or behavioral, our system is symmetrically multilateral. We treat all ramifications extending out from the immediate lineal line with equal weight (or lack of it). Such distinctions in emphasis as do occur are the result of personal preferences or aversions and proximity of residence, not the consequences of any systematic emphasis.

The lack of structural cohesiveness outside the inner circle of families in lineal descent in our kinship system reflects the weak role kinship groups play in our society. We emphasize the independence of separate conjugal family units.

Most of our problems of marriage and the family rise directly or indirectly from this fact. Parent-child conflict is generated because children must develop independence to be able to found their own economically independent families with separate households.

Much of the erratic behavior of adolescents, so baffling or amusing to adults, may be traced to the insecurity of the emergent boy or girl who is in transition from the bonds of his primary family of birth to the expectant secondary conjugal family he or she must soon found. Old-age insecurity is the lot of many parents whose secondary conjugal family has been pared down until only the founding pair is left. When one of them dies the survivor is at sea with no comfortable base in which to harbor. Old people's homes and old-age security legislation are the unsatisfactory social consequences.

Few of the social relations of children are predetermined by kinship status outside the immediate conjugal family. They are thrown into open competition for social status with success and prestige for some, frustration and insecurity for others.

Marriage rests heavily on the bond of love and affection, for there are no absolutely ascribed preferential matings within the kinship group to solve the problem of mating in the Australian way, nor is there much family control of mating as in China or France. These are only some of the upsetting consequences of our open, weak kinship system.

Advantages are those that are found in individual freedom of action in social and economic relations: freedom to choose one's friends within or without the relationship group, freedom to choose one's mate, freedom to find an occupation fairly untrammelled by kinship status, and freedom to live where one wills.

In America today the individual couple is largely on its own, to stand or fall as a unit according to the way in which the pair surmounts the weaknesses and hazards of our loose kinship system in a troubled society

and utilizes effectively the freedoms that it offers. The divorce mills grind for those who fail, and questing college students flock to sociology courses in Marriage and the Family.

SUMMARY

Systems of kinship terminology reflect the forms of kinship grouping in the social organization of any culture. The kinship terms of address or reference are tags or labels symbolic of each relative's status in relation to the speaker of the term. Each status has its customary roles, or norms of behavior, and the behavior of relatives is generally standardized according to status.

No kinship system distinguishes each separate genetic relationship. On the contrary, the tendency is to lump relatives of unlike genetic status into categories of like kinship status. Systems that emphasize genetic distinctions are called *particularizing*; systems that extensively lump relatives are called *classificatory*.

The Hawaiian type of terminology, which equates all relatives of each generation level, is the most highly classificatory. Other major types are the Eskimo, Dakota, Sudanese, Crow, and Omaha. Hawaiian and Eskimo terminologies are associated with bilateral social structure. At the other end of the pole, Crow and Omaha terminologies are associated with matri- and patrilineal social structures.

The American kinship system is bilateral, with an Eskimo type of system of terminology. Beyond the conjugal family, only the kindred exists—and this in weak form. Alternative kinship terms, used by Americans, reflect differences in respect and familiarity between relatives on an individual basis, and in this there appear to be psychologically and socially significant differences on a sex basis.

SELECTED READINGS

- Eggan, F. (ed.): *Social Anthropology of North American Tribes* (2d ed.). Contains highly informative articles on the kinship systems of six American Indian tribes.
- : *Social Organization of the Western Pueblos*. This will not be easy reading for the beginner, but it is one of the finest comparative studies of kinship systems.
- Lowie, R. H.: "Kinship" (*Encyclopedia of the Social Sciences*, Vol. 3), pp. 568–572. The elements of kinship systems clearly presented.
- Murdock, G. P.: *Social Structure*, Chapters 6 and 7, entitled "Analysis of Kinship" and "Determinants of Kinship Terminology." Requires hard thinking, but analysis of kinship systems is never easy.
- Rivers, W. H. R.: *Social Organization*. This book provided the starting point for most modern discussions of kinship systems.

Part Four

PRIMITIVE CULTURE

D. STATUS AND SOCIAL ROLE



Kikuyu notable. Kenya. (*British Information Services*)

CHAPTER 21. The Life Cycle

FROM a gross biological point of view life may be reduced to a simple formula: to be born, to mature, to reproduce, and to die. However, even the biologist will acknowledge that at least a few other events of significance occur along the way. Man embroiders upon the fundamental pattern.

Nevertheless, birth, maturity, reproduction, and death are the four basic and universal crises in the completed life cycle. In the earthly span of the human organism every individual who fulfills his biological destiny must pass through each of these peaks in the cycle of life. Therefore, in no human culture are these critical periods wholly ignored. They may, however, be approached and surmounted with varying degrees of intensity. Some peoples are habituated to treat one or another of the life crises in a matter-of-fact manner. Others exhibit much anxiety. In the latter situation there is considerable cultural emphasis of the crisis situation.

In general, however, since crisis periods are times of critical uncertainty—times when the fate of the individual or the group seems to hang in the balance—men are not inclined supinely to leave the outcome to mere chance or unbridled circumstance. Natural and supernatural forces may be controlled in fact and in belief. Therefore, positive techniques of rational assistance are employed, along with magic and ritual ceremonialism, to frustrate destructive and disruptive supernatural powers, or to encourage and invoke positive and helpful forces. Through ritual and ceremony, a bridge is thrown across the yawning chasms of fear and doubt wherewith to carry men over transitional states to a safe arrival and a firm footing in the new status awaiting on the other side.

CONCEPTION

The life cycle begins with conception. Yet no primitive peoples have a scientifically accurate knowledge of the nature of conception. This is not the result of prudery but of sheer ignorance. After all, even civilized

man has acquired genetic sophistication only in the last few hundred years, and there is still a good deal of talk about storks in our society.

However, most primitives are able to recognize causal sequences with sufficient astuteness to be able to associate the act of sexual intercourse with conception. Some are even acute enough to be able to recognize that the male semen plays a role in the generation of life. Yet the naïve notion that the male plants a seed, which the female nurtures, is the closest primitive man can come to reality.

Explicit notions of miraculous conception abound in the primitive world. In its most common form the belief is expressed that a child is the reincarnation of an ancestral spirit, who has slipped into the womb of the mother to be regenerated.¹ In Australia, this belief is raised to the status of a dogma so strong that the natives deny any relation between the sex act and conception other than to admit that the womb must first be opened so that ancestral spirits may enter.

Earlier anthropologists took this Australoid denial of the physiology of paternity at face value. Modern anthropology sees it as the cultural suppression of recognizable fact to sustain the shibboleths of the social system.² Ancestor worship and totemism are important themes in Australian culture. The continuity of the totemic group is sustained by means of the doctrine of spiritual reincarnation. To give expression to the fact of physiological paternity would be a subversive undermining of the sacred institutions of Australian social life—definitely un-Australian.

A similar functional explanation holds for the Trobriand Islanders' denial of physiological paternity. The nearby Dobu who believe that semen is voided coconut milk, which when it enters a woman causes the blood within her womb to coagulate and form a fetus, say bluntly that the Trobrianders lie. The point is verily a sore one. So many angry words have been exchanged over this moot issue in the past that nowadays when Dobus and Trobrianders meet they tacitly avoid the touchy subject. Fortune's Dobu companions scolded him for his bad taste in broaching the subject on a visit to the Trobriands.³ Not without reason is anthropology sometimes called "the study of rude cultures by rude people."

The Dobu notion that babies are formed by the coagulation of blood is shared by many primitives sporadically distributed about the globe. They reason from the observed fact of cessation of menstruation during gestation. By inversion they say that the clotting of the blood to form the baby stops the regular flow.

¹ E.g., B. Malinowski, "Baloma: the Spirits of the Dead in the Trobriand Islands," in *Magic, Science and Religion and Other Essays*, pp. 125-227.

² Cf. M. F. Ashley-Montagu, *Coming into Being among the Australian Aborigines*.

³ R. F. Fortune, *Sorcerers of Dobu*, pp. 238-239.

PREGNANCY

Life begins with conception, and conception produces pregnancy. No matter how they may envision conception, all primitives recognize pregnancy in empirical physiological terms. There are a number of externally observable biological alterations that occur in the mothers of all races. More notable among them are enlargement of the breasts and nipples, exudation of colostrum, cessation of menstruation, abdominal enlargement, and frequently nausea.

From the little that has been written upon this subject by anthropologists, primitives seem to focus on one or two of the symptoms as signs of coming events, although it is probable that they make note of all of

Fig. 21-1. Pregnancy is the foreshadowing of birth. A Bushman mother. (Peabody Museum, Harvard University.)



them. Cessation of menstruation is the one universally recognized sign. A fair percentage of the tribes are even so alert as to calculate the expected birth at nine months after the first skipping.

Various Oceanic and African tribes make note of breast changes; the Arunta of Australia, the Pukapuka of Polynesia, and others have been put on record as noting "morning sickness." Other primitives have told field workers that a valuable sign is diminution of appetite and a tendency to become lazy.⁴

⁴ C. L. Ford, *A Comparative Study of Human Reproduction* (Yale University Publications in Anthropology, No. 32, 1945), p. 44.

Pregnancy is merely the foreshadowing of birth. It is, therefore, in itself a crisis condition, or a preliminary phase of the critical event of being born. Most primitive peoples seize upon the gestation period as calling for a cultural relief of their anxieties. Chief among these anxieties are (1) fear that the child will not develop ideally, (2) fear that the fetus will miscarry, (3) fear that the birth will be difficult. Pregnancy tabus and injunctions are supposed to bring freedom from these fears.

Thus Ray reports for the Sanpoil Indians of Washington that a child-bearing woman and her husband may not eat trout lest the child shake like that lively fish. They may not eat rabbit, lest the child get weak legs. They may not eat "fool hen" lest the child be a moron! More than this, the mother-to-be has to rise before sunrise, stay awake through the day, swim in cold water, walk and run, and (in modern times) ride horseback to strengthen her for the ordeal to come.⁵

It may relieve some modern mothers of guilt feelings and induce some husbands to more indulgent understanding to know that queer food preferences in pregnancy are not silly whims. Quite a number of primitive peoples recognize that the pregnant woman has a craving for peculiar foods. Ford notes, however, that there do not seem to be any particular kinds of foods that are craved. The desire is for *variety*. What the basis of this desire may be we do not know.⁶

CHILDBIRTH

It is a strange thing that most of the anxiety over the crisis of childbirth comes before the event, not at it. Magic, ritual, and tabu dominate the prenatal period, yet when the moment of birth is reached, the obstetrical problems are in normal cases handled with matter-of-fact effectiveness free of mumbo jumbo.

For the most part, birth is strictly a woman's affair. However, a few tribes permit or require the husband to assist or to be present. Generally, however, the expectant mother retires into the house with one or two older female relatives to assist her. Midwife specialists are called upon among some people.

A widely accepted falsehood is that childbirth is easy for primitive women. It has even been anthropologically maintained that just as domestication increases birth difficulties for animals, so increasing domestication through civilization makes birth progressively more difficult for

⁵ V. F. Ray, "The Sanpoil and Nespelem" (*University of Washington Publications in Anthropology*, Vol. 5, 1932), p. 124.

⁶ Ford, *op. cit.*, p. 48.

the modern mother. There is little evidence for this neat idea. On the contrary, there is much empirical evidence in the record to prove that primitive women often suffer much agony and difficulty in childbirth; the multifarious magical provisions designed to assure an easy birth are surely ample evidence of the primitive's fear of hard delivery.

Practically all primitives have special emergency medical practices to call into play when birth is unusually difficult. In easy cases, there is little use of magic at the time of birth, but in drawn-out labor medicine men and women are hastily invoked. The Cheyennes send for a medicine man who has derived power from the otter. Otters make a delightful sport of sliding down mud banks. This is the way the baby should do, and an otter medicine man can bring it about—so they say.

The Couvade. A truly quaint custom is the *couvade*. On the birth of the child the mother gets up and goes about her affairs, while the father goes to bed, apparently to recover from the effects of childbirth. During the period of his confinement, he is subjected to many tabus.

This may be variously interpreted as a petulant demand for attention on the part of the male, or it may be a symbolic assertion of the father's identification with the child. Or perhaps it is a form of magical assistance in the establishment of the child in the everyday world. But it is hardly, as some young fathers might think, a consequence of sheer exhaustion. The symbolic assertion of identification of father and child seems to be the likeliest possibility.

As a matter of fact, not many cultures have produced the *couvade*. The Caribs and various of their South American neighbors are the outstanding *couvadists*. The Ainus of Japan and also the Chinese of Marco Polo's times should be included, as well as certain tribes of South India. In the northern mountains of the Iberian Peninsula the *couvade* has been practiced from the days of Strabo until very recent times.

According to Seed Eater Shoshone informants, they also practiced a real *couvade* in the old days.⁷ When the expectant mother retired to her birth hut, the father went into a retirement hut of his own made for him by his mother. There he stayed isolated for five days until the umbilical cord dropped from the newborn babe.⁸ He observed all the tabus that

⁷ E. A. Hoebel, *Shoshone Field Notes* (unpublished, 1934); also R. H. Lowie, "Notes on Shoshonean Ethnography" (*American Museum of Natural History, Anthropological Papers*, Vol. 20, Part 3, 1924), pp. 265-270.

⁸ "A striking instance of numerical imposition is the frequent relationship between the sacred number of a group and the day on which the umbilical cord 'falls off': in Bali, where the mother is in a special state for the first three days after birth, the cord falls off in three days; in Itamul, where the magic number is five, it falls off in five." M. Mead, "On the Implications for Anthropology of the Gesell-Ilg Approach to Maturation" (*American Anthropologist*, Vol. 49, 1947), p. 74.

normally applied to a menstruating woman. No meat or soup could be eaten, only cereals. On the day of birth his mother came to him and he rubbed himself with sage. If she said, "You have a boy," he took a long walk in the mountains—where the game abide—but he did not hunt. If she said, "You have a daughter," he walked down into the valleys, where the wild seeds grow. Thus he magically associated his child with its future occupation. When the five days were up, he bathed, and then when he killed his first game, he gave it away to the people.

The four widely scattered centers of the *couvade* (East Asia, the Pyrenees, northeastern South America, and the Plateau area of North America) indicate independent development and elaboration of the father's role in the birth crisis in these areas.

NAMING AND PRESENTATION OF THE CHILD

The mere fact of birth does not necessarily complete the transition of the child from the status of fetus to that of a member of the community. Many people feel that there must be a formal presentation to the people and the spirits. Many people feel that until this act is completed mother and child must remain in isolation. The mother is contaminated by her blood and by the dangerous forces of the birth crisis. This is the putative rationalization of primitives. Practically, of course, it is a good thing for the mother to have a chance to rest.

The Hopi child and mother, although visited by relatives on the day of birth, remain isolated for twenty days. On the twentieth day, mother, father, and child are bathed many times over. Relatives of every clan give the infant at least one name associated with each of their clans. Then as the sun rises the infant is carried out to be held before the Sun God, who is told all the names of the child.⁹

The Seed Eater Shoshone mother and child were isolated even longer—forty days. The birth hut was built by the woman's mother a long way from the camp. When the baby's umbilical cord dropped off after five days, the hut was moved closer to the camp. All menstrual tabus were followed exactly as by the father, but, in addition, the maternal grandmother prepared each day a bed of grass over hot coals for the mother to lie upon. (Today a hot-water bottle is used.) Throughout the day the mother worked busily at weaving and other small tasks. Few friends came to visit her. After six weeks, she and the child rejoined the village.

The Omaha Indian child was touchingly introduced to the entire cosmos on the eighth day after birth in a traditional ritual always per-

⁹ A fascinating autobiographical description of the entire birth ritual may be found in L. Simmons (ed.), *Sun Chief*, Chap. 1.

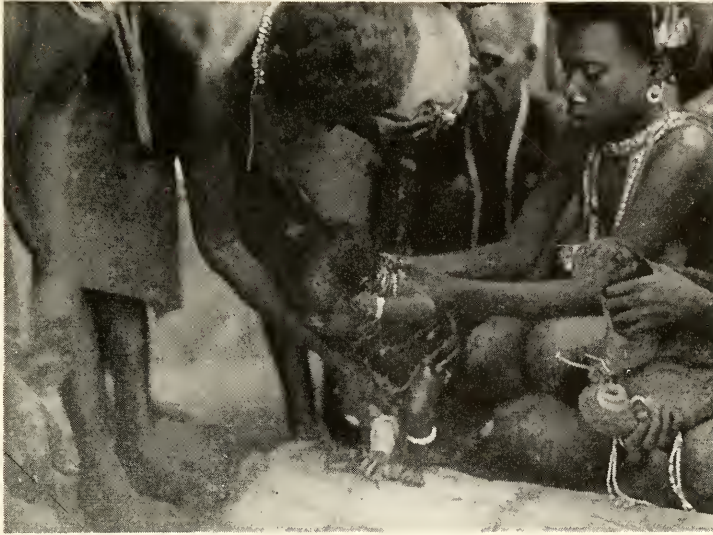


Fig. 21-2. Presentation and naming of a child. Solomon Islands. (Douglas L. Oliver.)

formed by a priest of a given subclan. On the eighth day the priest was sent for. When he arrived, he took his place at the door of the tipi in which the child was born. His right hand raised, palm up to the sky, he intoned this beautiful invocation in a loud, ringing voice for all the world to hear:

Ho! Ye Sun, Moon, Stars, all ye that move in the heavens,
 I bid you hear me!
 Into your midst has come a new life.
 Consent ye, I implore!
 Make its path smooth, that it may reach the brow of the first hill!

Ho! Ye Winds, Clouds, Rain, Mist, all ye that move in the air,
 I bid you hear me!
 Into your midst has come a new life.
 Consent ye, I implore!
 Make its path smooth, that it may reach the brow of the second hill!

Ho! Ye Hills, Valleys, Rivers, Lakes, Trees, Grasses, all ye of the earth,
 I bid you hear me!
 Into your midst has come a new life.
 Consent ye, I implore!
 Make its path smooth, that it may reach the brow of the third hill!

376 Status and Social Role

Ho! Ye Birds, great and small, that fly in the air,
 Ho! Ye Animals, great and small, that dwell in the forest,
 Ho! Ye Insects that creep among the grasses and burrow in the ground,
 I bid you hear me!

Into your midst has come a new life.

Consent ye, I implore!

Make its path smooth, that it may reach the brow of the fourth hill!

Ho! All ye of the Heavens, all ye of the Air, all ye of the Earth,
 I bid you all to hear me!

Into your midst has come a new life.

Consent ye, consent ye all, I implore!

Make its path smooth—then shall it travel beyond the four hills! ¹⁰

Yet even this ritual did not make the child a real member of the tribe, for a baby did not complete its transition until it could walk. Then it went through a "turning of the child ritual" wherein it discarded its baby name and got new moccasins. Baby moccasins always had a hole cut in the sole, so if a messenger from the spirit world came to claim the little infant, the child could answer, "I cannot go on a journey—my moccasins are worn out!" New moccasins without holes were an assurance that the child was prepared for the journey of life and that its journey would be a long one.

In Africa, the Ashanti entertain similar notions. The child is not ceremonially named and publicly presented until eight days have passed. Then it becomes a genuine human being. Should it die before that time, its little corpse is casually thrown on the garbage heap, for it is believed to have been but the husk of a ghost child whose mother in the spirit world had pawned it off on a living mother for a short period while she went off on some jaunt or other. On returning from her undertaking, she recalled her little spirit baby.

Not all societies undertake a formal presentation, but most of them, including our own with its christenings and baptisms, seem to do so. Virtually all societies do isolate mother and child for periods of time varying from a few days to several months.

Naming, incidentally, is a universal human practice. Shakespeare to the contrary, there is much in a name. It symbolizes the individual personality and often indicates some aspects of the individual's social status. The name is usually bestowed at the end of the seclusion period. If the name is ceremonially bestowed, it is usually done by a near relative, otherwise the most common practice is for the mother to decide what her child is to be called. Names that are associated with good luck or great deeds

¹⁰ A. C. Fletcher and F. LaFlesche, *The Omaha Tribe* (Bureau of American Ethnology, Annual Report 27, 1911), pp. 115-116.

tend generally to be preferred. Thus the Menominee discard their original names, if they are chronically sick, in the hope that a new name will bring a healthier state of being.

Change of names or acquisition of additional ones often occurs in the course of the individual's lifespan in many primitive societies, as new names are assumed to indicate new statuses.

PUBERTY

The second crisis in the life cycle is adolescence or puberty. Puberty, like birth, is a manifestation of a basic alteration of the biological state of the individual. It is the time of maturation of the secondary sexual characteristics and the final growth to functional capacity of the sex organs. Puberty marks the twilight of youth and the dawn of adulthood.

In both boys and girls puberty is no abrupt transition, but an accelerated development extending from the eleventh to the sixteenth year. Body hair does not sprout overnight on boys; the lengthening of the vocal cords with embarrassing sound effects is not instantaneous; the relative broadening of the shoulders is a process of adolescent growth as much as is the activation of the testicles and the production of fully formed seminal fluid.

In the case of the female, the majority of puberty changes, including the emergence of body hair, broadening of the hips, increase of subcutaneous adipose tissue, especially on the hips and breasts, and the development of the sex organs, all occur over a period of months. One function alone, however, first manifests itself at a particular moment. The onset of menstruation quite definitely signals the attainment of puberty for the female.

The transition from adolescence to adulthood is fundamentally a biological phenomenon. Yet for human beings it represents also a sociological transition. Because social status is culturally defined, adolescence is for most peoples more a cultural than a biological problem.

The first fact to note is that some cultures handle adolescence most casually.¹¹ The second is that some ritualize it for one sex or the other, or both, with most cultures placing heaviest emphasis on adolescence rites for boys. The third factor is that puberty rites do not necessarily synchronize with biological pubescence. They fall at the point when sociologically childhood is left behind and adulthood is entered.

Negatively, this principle is admirably demonstrated in the case of the

¹¹ For example, Samoa. "Adolescence represented no period of crisis or stress, but was instead an orderly development of slowly maturing interests and activities. The girls' minds were perplexed by no conflicts, troubled by no philosophical queries, beset by no remote ambitions." M. Mead, *Coming of Age in Samoa*, p. 157.

Alorese in the East Indies. For boys the attainment of adulthood is a long-drawn-out process calling for extensive economic enterprising. Because of this, and since there are no men's clubs and no secret societies, there are no rites of transition, no tribal initiation. Instead, "at about sixteen the boys begin to let their hair grow long. At this time they begin to acquire male dress ornaments: sword, shields, areca basket, wide belt, bow, combs, and head plumes. This is ridiculed by the women, who hoot the men, and scoff at this manifestation of masculine vanity."¹² The boys also file their incisors halfway down and blacken their teeth.

The Polynesians, in general, present an even more decisive manifestation of the principle just enunciated. Gifford says:

The absence of anything that might be called initiation rites that ushered boys into manhood is due to the fact that in Polynesia a boy left the company of women and was accepted into association with men at weaning, when the food tabu that required men to eat apart from women was laid upon him. The Polynesian boy became a man when he began to eat the food of men, not at adolescence.¹³

Thus, although superincision of boys was practiced by most Polynesians outside of New Zealand, the operation was performed at any time from infancy on. It was necessary only that the operation be completed before marriage.

Among the warrior tribes of the Plains and eastern North America there were no puberty rites per se. But at adolescence young men set out on vision quests to obtain the supernatural power that was so essential to a successful life. However, vision vigils were carried on by adults, too, so it cannot be said that any great emphasis was placed upon puberty by these people.

In the same manner, they treated the adolescence of girls most casually. Although all the tribes isolated the menstruating woman, nothing much was made of the first menses, except as the Cheyenne father proudly stood in the door of his tipi shouting the good news to the whole camp and celebrated his daughter's womanhood by a giveaway of a fine horse to some poor oldster.

But the Northern Shoshones and other peoples of the Columbian Plateau made a real crisis of the event for the girl. The pubescent Shoshone girl was isolated just for the period of her flow, but she had to be very busy, so she would not become a lazy woman. "Whatever she does then lasts for life." She could eat no meat, nor scratch herself, ex-

¹² C. DuBois, "The Alorese," in *The Psychological Frontiers of Society*, p. 139.

¹³ E. W. Gifford, *Tongan Society* (Bernice P. Bishop Museum, Bulletin 61, 1929), p. 187.

cept with a special stick. At the end of her first isolation she was brought new clothes by her mother—women's clothes.

Northern Shoshone attitudes were but a pale attenuation of those of the Carrier Indians to the north of them. As Benedict says, "The fear and horror of a girl's puberty was at its height. Her three or four years of seclusion was called 'the burying alive.' She was herself in danger and she was a source of danger to everybody else."¹⁴

In such societies as those of Negro Africa and aboriginal Australia, both peoples who place much emphasis on age grading (see Chap. 23), adolescence rites become genuine "tribal initiations." This is especially true in those cases wherein men's secret societies are of great importance. Consequently, boys' initiations are also striking in many parts of eastern Melanesia.

As a mild example of the more serious forms of puberty rites, we may quote from Radcliffe-Brown's account of the *Negrito* Andaman Islanders. These pygmy people have no secret societies or other associations, but they do place great emphasis upon age status. To be marked and accepted as an adult each boy and girl must go through specific ceremonies. Beginning early in childhood both sexes are gradually scarred over their entire bodies with small incisions "to help them grow strong," but the culmination is reached at puberty in the following manner: for the girl on the

¹⁴ R. F. Benedict, *Patterns of Culture*, p. 28.



Fig. 21-3. Girls' puberty rite. Shipibo, Peru. (*American Museum of Natural History*.)

first sign of her menses there is weeping over her by her mother and female relatives. Andaman weeping, let us hasten to say, does not express sorrow but rather marks an occasion of importance. The lass then plunges into the ocean for a two-hour bath—an act of ritual cleansing—after which she is tastefully decorated with pandanus leaves and clay.

Thus covered with leaves the girl must sit in the hut allotted to her, with her legs doubled up beneath her and her arms folded. . . . The girl sits thus for three days. Early every morning she leaves the hut to bathe in the sea. At the end of three days she resumes her life in the village. For a month following she must bathe in the sea every morning at dawn.¹⁵

When the friends and relatives of a boy decide that he is old enough to have the incisions made on his back, a dance is held throughout the night and the next morning.

The boy kneels down and bends forward until his elbows rest on the ground in front. One of the older men takes a pig-arrow and with the sharpened blade makes a series of cuts on the boy's back. Each cut is horizontal, and they are arranged in three vertical rows, each row consisting of from 20 to 30 cuts. When the cutting is finished the boy sits up, with a fire at his back, until the bleeding stops. During the operation and a few hours following it the boy must remain silent.¹⁶

Immediately upon completion of the puberty rites a number of food tabus are imposed upon both sexes. These are gradually removed in a series of formal ceremonies over a period of several years. Neither a boy nor a girl is considered to be a full-fledged adult until all the tabus have been removed.

If the whole ritual cycle is viewed as an entity, as should be done, then we see again that adolescence rites do not represent a fixed biological phenomenon so much as a social event roughly correlated to the biological.

In all cases, transition is the main theme—transition from the limited and undeveloped state of childhood to that of the adult endowed with the wisdom and privileges of a matured person.

Thus, death and resurrection are recurrent themes of stepped-up puberty rites. Death means the destruction of the childhood personality. Resurrection means restoration to the community in a new status with new roles. The Australian boy who retires to the hidden initiatory school in the bush, secreted from the eyes of all females and preadolescent boys, is "dead." When he returns to the camp of the band, circumcised, sub-incised, cicatrized, with a few teeth knocked out, and with new knowledge of totemic mythology, he is a new man.

¹⁵ A. R. Radcliffe-Brown, *The Andaman Islanders*, p. 93.

¹⁶ *Ibid.*, p. 95.

Without undertaking to be so specific about it, our college fraternities and men's secret societies use hazing to perform the same social function. Hazing the neophyte¹⁷ is a process of degradation that destroys his ego. With his old ego destroyed, he is ready for the formal ritual initiation from which he emerges a "new man" in the ranks of the exalted.

When old-time army sergeants bully and insult rookies they are not being merely sadistic, nor are they necessarily working off personal frustrations. Although sergeants may not be aware of any principles of functional anthropology, they do know that recruits have to be made over and put through a quick transition rite. A first and unfortunately necessary act is the destruction of civilian ways and civilian thoughts. "You're in the army now." Induction means civilian death, and the "top kick" is the executioner. Completion of basic training means resurrection in a new status—General Issue.

Torture in the puberty rites of Australian and many African tribes rises to heights of sheer sadism. Yet beneath it can usually be found a functional rationalization. In Australia, circumcision and subincision, painful and dangerous surgical operations when crudely performed with stone knives, are but symbolic acts signifying the sexual and social completeness of the males in a type of society that rejects and culturally suppresses the significance of women.

The sexual operations performed on girls in many parts of the African Sudan serve to exaggerate and emphasize their role as women and their status as wives.

There are a number of ancillary functions tied up with puberty ceremonialism. Cicatrization and the filing or knocking out of front teeth serve both as decorative elements and status identifications as well as tests of the neophyte's ability to endure physical pain. Strict discipline imposed during the rites works to fix the authority of the elders. The instruction in etiquette, mythology, and magic that usually accompanies puberty initiations embraces education and training in a practical sense and enhances ties of individual loyalty to the institutions of the tribal society. Yet under and through it all is the basic fact of transition—a transition that is fundamentally biological but often elaborately cultural.

DEATH

Death has no absolute finality for any primitive people. All of them believe in the immortality of the soul.¹⁸ Yet all men well know that death marks the end of corporeal existence. The transition from the carnal to a wholly spiritual existence at death is an act of faith and imagination,

¹⁷ Note that the very word means "produce anew" (Gr. *neos* new + *phytos* grown).

¹⁸ See Chap. 30 for the discussion of the soul concept in primitive belief.

a projection of life from a tangible and material state to an ethereal illusory condition sustained in the dogma of culture.

Because the dead are no longer constantly among the living but appear or make their influence felt only indirectly, they are almost always relegated to another world in human cosmogony.

Funeral rites serve five basic functions: (1) Participation in mortuary ceremonies, by habitual dramatization of the faith in immortality, prepares the living for the death that awaits them. "The belief in immortality," wrote Malinowski, "lived through ritually . . . makes him cherish more firmly the belief in his own future life. . . . Thus the ritual before death confirms the emotional outlook which a dying man has come to need in his supreme conflict."¹⁹ (2) The rites serve magically to assure the separation of the soul from its body, to guide the deceased through the supreme transition safely and properly. (3) They serve to readjust the community after the loss of a member and to regularize the emotional disturbances that result from the upset of affective habits in connection with the deceased. Death usually evokes grief. (4) Where feasting and property giveaways are involved, mortuary rites incidentally effect a

¹⁹ B. Malinowski, "Culture" (*Encyclopedia of the Social Sciences*, Vol. 4, 1931), p. 641.

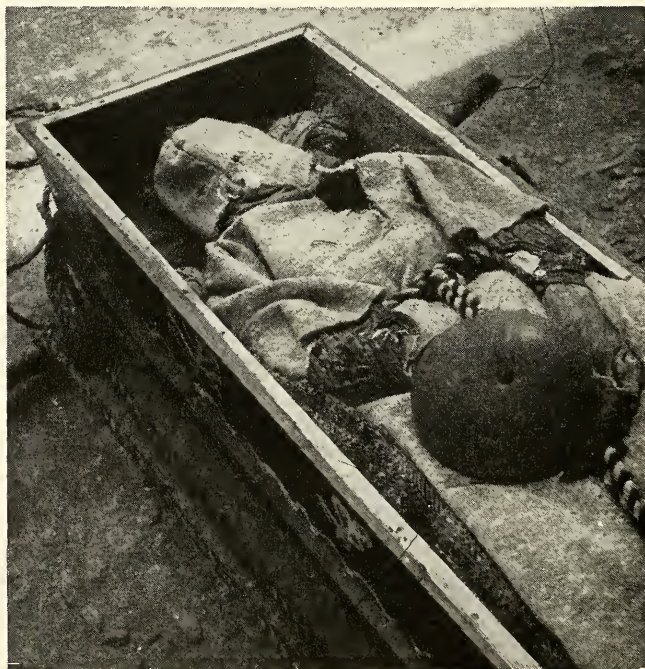


Fig. 21-4. The end of life. Vicos, Peru. (Peru-Cornell Project, photograph by John Collier, Jr.)

redistribution of wealth. (5) Finally, they lend highlight and color, richness and depth to life through the drama of their performance.

In early prehistoric times, Neandertal man of the Mousterian epoch was the first creature to give evidence of concern over death. He deliberately buried his deceased fellow tribesmen—a boon to archaeologists and an indication that he had developed imaginative intelligence to the point where the soul concept had become possible. All later men have consistently worked into their cultures some form of disposal of the corpse accompanied by a greater or lesser development of transitional funerary rites.

SUMMARY

Thus at each stage of the journey through life human beings have made a social issue of the biological crises. Each crisis marks a change in social status. Life is never wholly drab for any group of people. Ritual and ceremony, anticipation and anxiety, preparation and performance, all color and lend zest to the act of living. Each person in turn fulfills his role and plays his part. None can escape the beginning and the end. The favored few mature and reproduce as they traverse the whole cycle and work out their potentialities within the framework permitted by the cultures of the societies within which they are destined to live and die.

SELECTED READINGS

- Ford, C. L.: *A Comparative Study of Human Reproduction* (Yale University Publications in Anthropology, No. 32, 1945). Summarizes primitive natal attitudes and birth practices.
- Lowie, R. H.: *The Crow Indians*, Chapter 3, entitled "From Cradle to Grave." A description of the life cycle in a famous Plains Indian tribe.
- Opler, M. E.: *An Apache Life-way*. From conception to death in the culture of the Chiricahua Apaches.
- Van Gennep, A.: *Les Rites de Passage*. The classic work in this field.

CHAPTER 22. Status and Role

AT NO time in the history of mankind can there have been a society in which all members were identical in status. In every society that has come under anthropological scrutiny the members differentiate among themselves. Human beings do not form a colorless homogeneous mass. As Lowie aptly comments, "Primitive man is no imbecile; he is quick to perceive and to appraise those individual differences which as an inevitable biological phenomenon mark every group."¹ A suckling infant is not a gray-haired ancient; a woman is not a man; a childbearer is not a preadolescent. Nor is a master craftsman a bungling tyro. Such differences are recognized, and many lesser gradations, too. Social behavior is differentiated accordingly.

Social order is the system of interrelating and regulating individuals and groups. All individuals are alike in some respects, as they are also unlike in others. The grouping of the like into recognized social categories constitutes the status system of society.

STATUS

A status is the social position of an individual with reference to the other members of his society as determined by a specific attribute, cluster of attributes, or the generalized summation of all his attributes. Thus, every person has a number of statuses simultaneously. He has in the most specific and narrow sense as many statuses as there are recognized characteristics of the individual in his culture. Such characteristics are age, sex, bodily traits, and specific social experiences and affiliations. On the next level of abstraction, he has the more commonly recognized statuses that come from the possession of certain combinations of traits such as wisdom, courage, kindness, generosity, and even temper, in the case of the Plains Indian peace chief. Finally, each person may have that generalized

¹ R. H. Lowie, *Primitive Society*, p. 338.

sort of status that is referred to when the question is asked, "What is his social status?" This last sort of status identification calls for gross stereotyping of individuals. It seizes upon a small number of obvious criteria for lumping individual personalities into an undifferentiated class mass. The first sort of status identification, in contrast, calls for knowledge of numerous attributes of the individual and thus leads to a greater concern with the uniqueness of personality of the individual.

Thus it should be kept in mind that status means "specific status" or "generalized status" with varying degrees of generalization.

The status system of every society involves also a certain amount of ranking. But, be it noted, *status* and *rank* are not synonymous. *Status* is a neutral term, which refers only to position. *Rank* refers to hierarchical status—higher or lower with reference to other statuses. The rank order of a society is its system of status gradation. A high status is one that carries prestige, i.e., the attitudes associated with it are those of deference, reverence, submission, subordination on the part of those of lower status. Prestige translated into action means power—the capacity to influence or direct the behavior of others. A low status carries little prestige; the power capacities associated with it are puny.

The range embraced in a rank order will be wide or narrow dependent upon the disparities in power structures formed by the culture. In simple democratic hunting and gathering societies like the Eskimo the range is narrow. In rich class-organized societies like Dahomey the range from slave to king is great.

ROLE

Social psychologists have drawn an important distinction between status and role, the latter being the customary complex of behavior associated with a particular status. "When we ain't fightin'," Willie morosely acknowledges to Joe, "we should ack like sojers."² Every man is to some degree a poseur, for life in society is a playing of roles.

The command, "Just be your natural self," does not mean what it says. It really means, "Suppress your conscious awareness of the roles you expect to enact." A person's behavior is "natural," is free of posing, only when he has become so habituated to all his roles that he does not register awareness of them while performing them.

Newborn infants and imbeciles alone have no acquired roles as complements to their statuses. No one expects much of either of them.

Because every person has multiple statuses, he also manifests many different roles. A married professor behaves differently in the intimacy

² B. Mauldin, *Up Front*, p. 83.

of his family (the father role) than he does in the classroom (the professor role). And if he is a volunteer fireman, he behaves quite differently when engaged in "firemanic" activities, both of an extinguishing and social nature. At different times, therefore, different roles come to the fore. Several roles may be operative simultaneously, but the intensity of their effectiveness is variable. If the professor's child visits the class, the professor activates both the role of professor and of father, but in all propriety the professional behavior should be strongest.

At times various roles may be held in abeyance or inactivated. A Pueblo Indian, while cultivating his fields, holds his dancing roles as a member of the Flint society in abeyance. The roles of a person are to be likened to a chest of clothing from which may be drawn the garb suitable to each occasion, with many quick changes called for.

Linton has referred to this phenomenon as *active* and *latent* status.³ More precisely, it is the roles rather than the statuses that are activated or kept latent. Since status is an abstraction referring merely to social position and is not in itself behavior, it will be better to identify *roles* as active or latent.

ASCRIBED AND ACHIEVED STATUS

The statuses that are held by an individual are variously attained. They may be sought through striving and competitive mastery of the roles linked to the various statuses. Such statuses in the terminology suggested by Linton are called *achieved*.⁴ MacIver calls them *functional determinants* of social position.⁵ Other statuses devolve upon the individual by virtue of his innate biological characteristics such as sex, age, and race, or by virtue of his preexisting social affinities, such as the statuses of his parents and kinsmen and the involuntary associations into which he is born. These statuses are *ascribed* to the individual by his social system, and there is little he can do to escape them or to alter them. It is important to note that achieved statuses are attained only through the process of first mastering the roles. As Barton has observed of the Kalinga in northern Luzon, "Elevation to rank and power in the community is a gradual process of emergence in which power is attained before the rank is acknowledged by the people."⁶ When the role is finally mastered the status flows from this fact. A master hunter must first master hunting.

In the case of ascribed statuses, on the other hand, the status comes first and the roles are mastered subsequently. It is even possible to in-

³ R. Linton, *The Cultural Background of Personality*, p. 78.

⁴ R. Linton, *The Study of Man*, pp. 113-114.

⁵ R. M. MacIver, *Society*, pp. 78-79.

⁶ R. F. Barton, *The Kalinga*, p. 148.

Fig. 22-1. Status is ascribed before mastery of roles. A child wife. Ajanta, India. (David DeHarport.)



herit ascribed status without mastery of the roles. There are betimes unkingly kings, ignoble nobles, unladylike ladies.

Ascribed status distinctions based on age, sex, the premarital state, antefecundity, and kinship are the universal foundations of human social structure.

Achieved status criteria that are ubiquitous to all societies are those based on technological skill or artisanship (all peoples make tools), supernaturalism (all peoples have magico-religious specialists), the marital state, fecundity, and political leadership.

Nonuniversal ascribed statuses include caste-determined occupations, inherited supernaturalism, inherited possession of wealth, inherited possession of various religious and social perquisites and paraphernalia, and inherited political position (i.e., royalty).

Nonuniversal achieved statuses include those based upon hunting skills, skill in games and dances, bravery and skill in war, head-hunting, storytelling, wealth possession or distribution, bodily mutilation, and membership in various specialized associations. (This list is not exhaustive.)

The functional importance of all these different statuses rests in the fact that they limit and influence the degree and direction of cultural participation and the manner and amount of interaction for individuals and groups. No one person ever manifests all the behavior characteristic of his culture, because, for one reason, no one person ever enjoys all the statuses in his society.

The greater the number of achievable statuses in a culture, the wider

is the room for full participation (potentially, at least) by all members. The more extensive and rigid the ascribed statuses, the more constrained are the individuals in their culturally prescribed roles.

Cultures that emphasize achievable status are marked by internal social mobility, social striving, and (on the whole) competitiveness and individualism. Emphasis is placed upon "fulfillment of self" and assertiveness. The social gain is ideally a greater ultimate efficiency because capable persons are not barred from effective functioning in those capacities for which they have adequate aptitudes. Conversely, caste and rigid class systems are socially wasteful because they ascribe functions to people who are not necessarily well suited to their performance, while at the same time they bar potential adepts.

On the other hand, the advantages of social systems that emphasize ascribed statuses lie in reduced strain and anxiety for the participating members of the society. Competitive insecurity is presumably reduced. Frustration born of failure to achieve a sought-after status is avoided.

When ascribed status systems begin to lose their authority, however, and persons in statuses of marked social disability begin to aspire to achievable statuses, frustration for them and anxiety for those in the threatened ascribed positions become acute and difficult, in the way that marks Negro-Caucasian relations in some parts of the American population today.

SEXUAL STATUS

Sex dichotomy is a biological fact upon which culturally determined statuses are built. But what is biological and what is cultural in sex differences is not established with certainty for all types of activity. True, certain physiological functions are sex-linked. Females produce ova, while males produce sperm; females have specialized sex organs for the nurture and incubation of fertilized ova. Males do not. Females are capable of parturition. Males are not. *Homo sapiens* is a bisexual animal in which the basic reproductive roles are biologically fixed. So long as babies are born of women, differential statuses of male and female will be recognized and culturally reflected. The real social revolution will come when perfected biogenetic techniques make possible the fertilization and incubation of the human ovum outside the womb. But that day is not at hand. Every society, therefore, assigns to the male and female different roles. But the patterns of these roles reveal a remarkable flexibility as between different cultures. Each society expects men and women to behave differently; what men do is one thing; what women do is another.

In the pueblo of San Ildefonso

. . . there is a sharp line between men's work and women's work, and in the respective attitudes of the sexes towards their work. Men's work on the whole

tends to be cooperative. The ditches are dug by the male community in the spring; the fields are tended as a group enterprise. . . . Among women, on the contrary, work has tended to become competitive; women seldom carry on any of their activities as a group. . . . Theoretically, at least, women play comparatively minor roles. San Ildefonso men do work which elsewhere is frequently the task of women. Their special province is called "outside work." Traditionally they hunt, dress the skins of the animals they kill, cut and sew moccasins for themselves and for the women, weave . . . baskets, and weave and create their own dance costumes. . . . Men till the fields and the gardens, plant and reap, cut and haul firewood. Within the village itself they build the houses, care for the *kivas*, and clean the plaza before fiestas and dances. . . . Women's work is "inside." They care for the household, grind the grain, cook, and tend their children. They make and fire the pottery, and if there is no man in the family who can decorate it, the women may decorate their own.⁷

Of Lesu, in Melanesia, Powdermaker writes, "It is the sexual division of labour adhered to so rigidly that first strikes the ethnological observer. Men have one kind of work and women another, and a third kind may be done by either one of them jointly." In tabular form she compiles men's and women's work as follows: ⁸

MASCULINE	FEMININE	JOINT
Clearing ground for new garden and building garden fence	Planting taro and yams; weeding; gathering crops and carrying them home	
Planting trees		
Getting sago		
Fishing	Catching crabs on the reef	Catching the sea worm, beta
Hunting wild pig and phalanger	Feeding domestic pigs	
Cutting firewood; making the <i>liga</i> ; bringing the leaves for cooking	Drawing water	
Preparing pigs, fish, and sago to be cooked	Preparing taro and yams to be cooked	
Burying bananas in the sand		
Housebuilding and repairing	Sweeping the house and keeping it in order	
Making of masks, canoes, <i>malanggans</i> , fishing nets, spears, ornaments	Carrying heavy burdens with the exception of fish and pigs	Making baskets and mats. Taking care of children. Medicine and magic. Making "paint" for the hair

But although each society divides men's work and women's, what is

⁷ W. Whitman, *The Pueblo Indians of San Ildefonso*, pp. 99-100.

⁸ H. Powdermaker, *Life in Lesu*, pp. 161, 163.

distinctly men's work in one society *may* be women's work in another.

As obvious examples we may note that the weaving of Navaho blankets is women's work, while among the neighboring Hopi both spinning and weaving are confined to men. In nineteenth-century America boys were supposed to be able to swim; girls were not; among the Yaghan of Tierra del Fuego, women are the swimmers. Among the Pueblo Indians most garden work is done by men; among the Iroquois, hunting and fighting were for men but tilling was for women only. Among the Maricopa Indians of southern Arizona, pottery making was "wholly a woman's occupation and a year-round task."⁹ Weaving, however, was properly men's work. Women harvested and ginned the cotton, which was grown exclusively by the men, and both sexes spun the yarn.

Anthropologists have, because of such facts, learned to reject without further ado such flat assertions as those that state that women are naturally housekeepers, or more peaceful than men, or more religious. But—anthropology has also established that the world around certain kinds of work activities are quite consistently assigned to men and other kinds to women. Murdock's cross-cultural survey of 224 widely selected societies shows that three-fourths of those for whom relevant data are available assign the tasks of food and fuel gathering, grinding of seeds and grain, preparation of foodstuffs for preservation, weaving, and the manufacture of pottery, basketry, and mats to women. These are all tasks which, except for the gathering of foodstuffs, can be carried on in the immediate vicinity of the hearth and infant. Hunting is men's work in all but 2 per cent of the societies, trapping, mining, and quarrying in 95 per cent, fishing in 86 per cent, and herding in 85 per cent.¹⁰ These predominantly male activities demand great mobility and an intimate knowledge of the tribal terrain.

Margaret Mead's early studies in sex and temperament emphasized the transmutability of the male and female roles in different cultures.¹¹ Of three tribes in eastern New Guinea, one (the Arapesh) is presented as equalizing the temperamental roles of men and women; another (the Mundugumor) is described as producing violent and aggressive persons of both sexes; the third (Tschambuli) molds men in the pattern of parasitic fops whose foibles are tolerated in comfortable amusement by the energetic, realistic, hard-working women. The contrasts are striking and would conclusively demonstrate the absolute transmutability of the temperamental roles of the sexes, if Mead's interpretations were corroborated by independent observation. Thurnwald, Malinowski, and Fortune, how-

⁹ L. Spier, *Yuman Tribes of the Gila River*, p. 104.

¹⁰ G. P. Murdock, "Comparative Data on the Division of Labor by Sex" (*Social Forces*, Vol. 15, 1937), pp. 551-553.

¹¹ Especially, *Sex and Temperament in Three Primitive Societies*.

ever, all rejected the reliability of Mead's sex temperament studies.¹² Each of them is also a Melanesian authority.

Today, Mead's *Sex and Temperament in Three Primitive Societies* is mostly of historical interest, for she has superseded it with a much more matured and balanced treatment of the problems of male and female images and roles in a larger number of societies than she first worked with. *Male and Female*, published in 1949, demonstrates not transmutability of the sex roles but culturally produced variability in the self-concepts of the sexes and behavioral expectancies according to sex in seven societies that have been intimately studied by Dr. Mead.

The sound anthropological position is that certain sex-linked behaviors are biologically based, although subject to cultural modifications within limits. The roles as they occur in any society may be empirically observed and ethnographically recorded.¹³

AGE STATUS

Age statuses are recognized in all societies. Young children may be highly valued as objects of desire, but they never have prestige by the mere fact of their status as infants. In the exceptional instances in which infants do enjoy high status and prestige it is always as a consequence of some special factor other than age: a princeling by birth, or a twin by imputed supernatural qualities (among the Dahomeans).¹⁴

Youths and those of middle age rarely enjoy favored status by virtue of their age, although prowess and wealth may bring prestige status to them. The aged, however, almost universally enjoy statuses of respect, reverence, and privilege because of the attributes that are ascribed to them by virtue of their being old.¹⁵ It is not just being old that brings prestige. It is the accumulated wisdom and lore of the oldsters—the association of ancient custom with ancient people. As has been said of the Haida Indians of Queen Charlotte Island on the Northwest Coast, "They had great respect for the aged, whose advice in most matters has great weight."¹⁶

¹² R. Thurnwald, "Review of *Sex and Temperament in Three Primitive Societies*" (*American Anthropologist*, Vol. 38, 1940), pp. 663-667.

B. Malinowski, Preface, in R. Firth, *We, the Tikopia*, pp. vii-viii. "Under the deft touch of another writer the women of one tribe appear masculine, while in another males develop feminine qualities almost to the verge of parturition. . . . The reality of human life is being submitted to some queer and alarming manipulations . . . based on a few hypostasized impressions."

¹³ For example, N. M. Griffin, *The Roles of Men and Women in Eskimo Culture*.

¹⁴ M. J. Herskovits, *Dahomey*, Vol. I, pp. 263, 270-272.

¹⁵ L. Simmons, *The Role of the Aged in Primitive Society*, p. 79.

¹⁶ A. P. Nibback, *The Coast Indians of Southern Alaska and Northern British Columbia* (Board of Regents of the Smithsonian Institution, Annual Report, 1890) p. 240.

In stable societies accumulated experience builds up. Elders really do know more than youngsters, and what they know holds good. But in a rapidly changing culture, accumulated knowledge often becomes quickly shopworn. What was valid in the youth of the aged is no longer so. Wisdom based on outdated knowledge is, alas, of little credit to him who clutches it as a source of prestige.

In the primitive world the oldsters are "elders" in politics and government, magicians and priests in supernaturalism, and owners of property in some systems of economic organization. These are sources of power. Since such sources are more available to men than to women, old men usually have higher status than do old women.¹⁷ The positions of the aged are more secure in the settled horticultural tribes than is the case among hunting and collecting peoples, especially those who live in the Arctic and its fringes, where old people are unable to participate in primary productive activities to any extent. The support of the aged is a luxury that marginal societies find themselves unable to sustain in times of stress. Senilicide is general among the Eskimos. Old people may be blocked up in a snow hut to be abandoned to cold and starvation. Or they may be killed by more violent means when they themselves request it.¹⁸ However, of the seventy-one societies tabulated by Simmons, only two (both Eskimo) violently remove the aged; seven abandon or expose them to natural elements to hasten their deaths.¹⁹ This does not mean that in these seven societies all old people are destroyed when their powers wane. It depends upon individuals and circumstances.

Almost all observers remark that old people are respected in the tribes they have visited. Only the Bushmen of South Africa and the Witotos of South America are said definitely to withhold respect from aged men. Eight of the tribes studied by Simmons deny deference to old women.

The Andaman Islands provide anthropologists with their favorite example of age as a status determinant. Kinship, which is so important in most primitive societies, is here muted. Rather,

. . . the duties that one person owes to another are determined much less by their relation to one another by consanguinity and marriage, than by their respective ages and social status. . . . There is very little of any special customs relating to conduct towards different kinds of relatives. Corresponding to this we find very few terms to denote relationships and a considerable development of terms which denote age and social status.²⁰

Older persons have many food privileges denied to the young. Gradually,

¹⁷ Simmons, *op. cit.*, pp. 47-49.

¹⁸ E. A. Hoebel, "Law-ways of the Primitive Eskimos" (*Journal of Criminal Law and Criminology*, Vol. 31, 1941), pp. 670-671.

¹⁹ Simmons, *op. cit.*, Table VI.

²⁰ A. R. Radcliffe-Brown, *The Andaman Islanders*, p. 81.

and with elaborate ritual, the food tabus are removed for the growing youth until at full maturity he may enjoy all the delicacies permissible to his sex. Younger persons must defer to the older in all matters.

In Australia, where, as in the Andamans, we find some of our most primitive peoples, seniority has reached its greatest significance—so much so that Australian social organization is dubbed *gerontocracy*, “the rule of elders.” The preeminent domination of the Australian horde by old grizzled men gave birth and impetus to the nineteenth-century notion that the primeval condition of man was that of browbeaten youth frustrated by the hoary patriarch. Australia, however, represents a special elaboration of age status in a way not universally characteristic of the lower primitives (in contrast are the African Bushmen and American Shoshones).

WEALTH

Among roving collectors of food there are definite limits to the amount of goods people are able to carry around with them. It is not possible under such circumstances to accumulate wealth. Of rich men there are none. The possession of wealth is not for the lower primitives a status determinant of great significance.

The giving away of food and goods is another matter, however. Food claims are communal in nature in almost all primitive societies (see pages 442–443). Prestige and leadership go to hunters who have food to dispense, hides to bestow, arrows to give, and (among Plains Indians) horses to lavish upon favored friends, wayfaring visitors, and indigent neighbors. Plains Indians recognized as families of good standing those whose tipis were well-kept and decorated, whose industrious men and women kept their lodges well supplied with victuals, fine robes, and handsome clothes, but above all those who gave freely of what they possessed. Fluid wealth brought high status in its train. Hoarded wealth brought only contempt. This is what settlers on the Indian frontier could not understand when silent Indians appeared at the cabin door expecting a ready handout.

On the Northwest Coast the fluidity of wealth is guaranteed by the *potlatch*—an elaborate institution of feasting accompanied by the lavish distribution of presents by the host and his kinsmen to guests of another lineage or tribe. Its primary function is to serve as a demonstration of the family and individual statuses of the hosts. The guests are witnesses to the hosts' claims to certain statuses. Although accumulations of wealth are necessary for potlatching, it is not the wealth that gives status; it is the legitimate possession of honorific prerogatives, which are linked with specific names and titles, which are inheritable, but which may not be used until publicly assumed at a potlatch given for the purpose. To use

a name not publicly notarized at a potlatch is a shameful presumption, and to address a person by a name he has inherited but has not validated is an insult to his standing.²¹

Record of a Tsimshian potlatch that took place around 1930 illustrates the old principle with some modern touches. It is the story of the chief of the Gitlan tribe and a member of the Wolf clan. When Gusgai'in, chief of the Gitlan died, his nephew announced that he would take up his uncle's name at some later date. Before this could be done, he and a Wolf clansman jammed their motorboat between the piles of a bridge, and were left hung up when the tide flowed out from beneath them. This would be enough to cause any good boatman chagrin, but when they were badgered with the remark, "We saw a wolf hanging up under the bridge," the status of all Wolves was impaired.

A potlatch was necessary to rehabilitate their position. Wherefore they undertook to give a traditional ceremony, the family Feast of the Early Snow, commemorating the exploit of the ancestral chief, Gusgai'in, whose name was now to be assumed by his descendant. This ancestor had passed beneath a glacier in his flight from enemy captors, so with poetic flavor

²¹ Cf. P. Drucker, "Rank, Wealth, and Kinship in Northwest Coast Society," and V. E. Garfield, "Totem Poles and Potlatch," in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 214-225.



Fig. 22 2. Kwakiutl chief with copper. Queen Charlotte Island, British Columbia. (*Orbit Films*.)

the *pièce de résistance* of the commemorative banquet was to be a native sherbet made of snow mixed with olachen grease, berries, and crabapples. In keeping with the times, however, ice cream was served at this potlatch. Before each person who had taunted the hosts was placed a heaping dish of ice cream, more than he could possibly eat.

Gorging a guest and then making fun of him was a favorite form of ridicule and provided much amusement for the guests. . . . When the feast and hilarity were over [so goes Garfield's account], the chief arose and explained the mythological background for the feast they were giving. He thanked the guests for coming and announced that, in so far as he was able, he would fill the position of his late uncle. Then La'is, the senior Wolf of the Gilutsa'u tribe, arose as the chief's spokesman and said that, as the chief had been publicly addressed as Gusgai'in, the latter was hereby acknowledging the name and assuming the position. . . . Spokesmen for each guest chief affirmed Gusgai'in's right to the name and welcomed the new chief as a brother. They also acknowledged that the bridge incident and other slurs would be forgotten. Much of tribal history was narrated during the speeches and many compliments were paid the host and his lineage.

Gifts of food and handkerchiefs were then distributed among the guests. Dancing ended the potlatch.²²

Although sensitivity as to status is shown in this account and although guests are ridiculed to the credit of their hosts, the potlatch atmosphere here described is one of congeniality and pleasure. This, from all reports, is more characteristic of the Northwest Coast potlatch than is the tense rivalry and extreme megalomania ascribed to the Northwest Coast Indians by Benedict in her well-known discussion of potlatching among the Kwakiutl Indians.²³

Whereas the Kwakiutls "fight with property" and have made of the potlatch a form of vicarious conflict, the more normal Northwest Coast use of the potlatch is to utilize it as a public proclamation of claims to statuses with public acknowledgment of the claims, if they are valid and deserving of public recognition.

Barnett, whose well-balanced analysis of the potlatch as an institution is based on firsthand experience combined with exhaustive comparative study, notes that "the totality of a man's potlatches, given by him or for him, is an acceptable gauge of the esteem in which he holds himself."²⁴ To which should be added, "within the limits imposed by his inheritance of titles and prerogatives."

²² V. E. Garfield, "Tsimshian Clan and Society" (*University of Washington Publications in Anthropology*, Vol. 7, No. 3, 1939), pp. 205-206.

²³ R. F. Benedict, *Patterns of Culture*, pp. 173-222.

²⁴ H. G. Barnett, "The Nature of the Potlatch" (*American Anthropologist*, Vol. 40, 1938), p. 354.

Not only does the potlatch serve to affirm the status of the host, but the protocol of seating, serving of food, and distribution of gifts does the same for the guests. Invariably the giving is in order of rank. The person with the highest rank is called upon to come up first to receive his allotted share, and so on down the line. The position of each person with respect to every other is rigidly determined by the nature of the validated titular prerogatives he holds.²⁵ The mere giving of a potlatch does not validate a person's claim to status. The real validation comes when he is called forth to receive his gifts when he is a *guest* at other potlatches. Only if his hosts call him forward at the moment warranted by the position he has claimed are his claims validated.

The goods distributed at the potlatch are not capital investments; lending and repayment form no part of the potlatch distribution. "Their more immediate character is that of a gift, a favor unconditionally bestowed."²⁶ The overdone capitalism of the Kwakiutls is not representative of the usual Northwest Coast pattern.

Similar practices are prevalent in many parts of Melanesia, where "big men" get to be such through the giving of expensive feasts and the lending out of pigs or other forms of capital goods.²⁷ To rise through the various degrees of the all-important men's club of the Banks Islanders calls for the payment of heavy initiation fees. None but the richest of men can afford to purchase the higher degrees. Indeed, as Lowie has summarized the data,

It is only the man of wealth who can reach the highest degrees and thus acquire prestige. . . . Yet the aboriginal conception is not that of avariciously hoarding wealth but rather of displaying one's greatness by exhibiting contempt for property. So a man of the loftiest status in the club may still promote his renown by providing the lavish entertainment associated with certain festivals; nay, a suggestion of niggardliness on these occasions would go far to destroy his influence.²⁸

Trobriand chieftains gather great stores of yams brought in as subject tribute. But this wealth must be dissipated in public feasts eaten by the populace and chieftains alike.²⁹

The stewardship of wealth is not emphasized by primitive apologists. Yet as an anthropological principle it may be said that the management of wealth rather than its possession gives social recognition among primi-

²⁵ P. Drucker, *op. cit.*, p. 215.

²⁶ Barnett, *op. cit.*, p. 353.

²⁷ Cf. C. D. Forde, *Habitat, Economy, and Society*, pp. 180ff.; M. Mead, "The Arapesh of New Guinea," in *Cooperation and Competition among Primitive Peoples*, pp. 32-35; and especially D. L. Oliver, *A Solomon Island Society*.

²⁸ R. H. Lowie, *Primitive Society*, p. 277.

²⁹ B. Malinowski, *Argonauts of the Western Pacific*, p. 64.



Fig. 22-3. Ritual feast for status. Ruming Island, Melanesia. (Peabody Museum, Harvard University; photograph by David M. Schneider.)

tive peoples. Social compulsion stimulates altruism, philanthropy, and good works. In civilization it has been easier to negate this principle than is the case in the primitive world.

APTITUDES

If skill is a joy to any man, it should also be true that skill in any function valued by a society brings prestige and high status to the expert. By and large, anthropological data support this supposition.

Militaristically oriented societies applaud and honor proved valor. Jivaro head-hunters count their glory in the number of shrunken heads they tally in their personal collections. The Icelandic sagas resound the fame of Gunnar of the "singing bill," mighty slayer of men. The Iroquois rewarded outstanding fighters with the opportunity to recite their deeds of valor before the admiring multitude at the victory dance, and each war leader had a war post upon which he depicted his exploits.

On the Plains, elaborate systems of coup counting were built up in a manner that inspired the merit-badge system of the Boy Scouts. A blow struck against the enemy is a *coup* in a literal sense. To ride or run into a howling mob of painted adversaries and touch an enemy stood high on the list of war merits. It was more praiseworthy than to kill him, for a dead man is not dangerous. It takes more courage to strike an enemy and run away than to lay him low. This often worked to the advantage

of our own troopers in the Indian wars, who, when battle was joined, fought for keeps, not for fun. Indians who were intent on showing off made better shooting than shooters.

It was also a coup to kill an enemy, but even in this act there were degrees of merit. A kill with a knife, tomahawk, or spear rated much higher than a lethal shot with bow or gun. Scalps were desirable souvenirs of victory, but taking a scalp after the battle was over was no coup at all.

Life in a Plains Indian camp was studded with opportunities, ritual and otherwise, for brave men to recite their coups and to receive the plaudits of the people. These men became war leaders.

The pacifistic Pueblos gave special status to warriors who had killed and scalped. But it was not a glorified status. Rather, it was the status of polluted men who had to be purified through ritual initiation into the Warriors' Fraternity. In the recent war, the men of one Keresan pueblo in New Mexico were exhorted on leaving for the service not to touch any dead Germans or Japanese or to pick up any battlefield souvenirs that had belonged to the enemy, because there was no one then living who knew how to initiate them into the Warriors' Fraternity. They would remain polluted and dangerous for life, if contaminated by the enemy dead.³⁰

Proficiency in supernaturalism gives special status to shamans and priests the world over—a status that bears a greater or lesser degree of prestige in almost all cases. The social position of sorcerers is esteemed or hated as the culture legitimatizes or rejects their works. There are good magicians and evil, skillful and incompetent. The test imposed by primitive man is pragmatic; he who makes magic work is always respected (whether honored or feared depends on his use of it); he who flubs his magical undertakings is scorned and debased, neither honored nor feared.

Proficiency in craftsmanship usually brings moderately high status among primitive people, but it tends to rank below military prowess, supernaturalism, political leadership, and wealth manipulation as a prestige generator. Polynesians among all recorded primitives gave the most conscious and organized recognition to craftsmanship. The *Tuhunga*, or great adept, of the Tonga tribe in Polynesia was highly revered, whether he was a master of oratory, tribal lore, housebuilding or canoe manufacture. Only by virtue of much mana (see page 530) was it possible for a man to excel in anything. And all Polynesians were impressed by mana.

Occupations linked to inferior castes in Africa and India bring no kudos to their practitioners, no matter how skilled the craftsman. A

³⁰ Nevertheless, some of the veterans did return home thus contaminated. In 1948, therefore, the men of this pueblo invited the Opi (Warrior) Fraternity leaders from another Keresan-speaking pueblo to initiate the veterans.



Fig. 22-4. Zande magician. A respected status based upon aptitude. (Belgian Government Information Service.)

Masai blacksmith is doomed for life to despicable subordination, for that is the pariah status his culture ascribes to blacksmiths.

When people of like statuses group together to form a sharply identifiable social cluster within the larger population of their society, we have associations (called *sodalities* by some) or classes. These will now be considered in the next two chapters.

SUMMARY

No population organized into a society ever consists of a homogeneous mass of undifferentiated people. Every culture gives recognition to inherent biological differences based upon sex, age, and physical appearance. Culturally created differences, such as marital, political, economic, religious, military, are also universally extant. Where such differences are culturally identified, they are known as *statuses*, which may be either ascribed or achieved. Each status involves specific norms of behavior which in the aggregate add up to the roles that go with the statuses.

Statuses vary in prestige in differing cultures because of differences in basic values. Indeed, some cultures deemphasize prestige differences in status; others place a high value on hierarchical distinctions. Emphasis on achievement of status, the open door to freedom of action, or emphasis upon ascription of status, the closed door of social immobility, are expressions of cultural relativity. The most elemental statuses are biologic, as are their associated basic roles. Beyond these, variable values dominate the scene.

SELECTED READINGS

- Drucker, P.: "Rank, Wealth, and Kinship in Northwest Coast Society" (*American Anthropologist*, Vol. 41, 1939), pp. 55-65; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 214-221.
- Griffin, N. M.: *The Roles of Men and Women in Eskimo Culture*. The division of labor by sexes in a simple culture.
- Kuper, H.: *An African Aristocracy: Rank Among the Swazi*. Royalty and commoners in a South African tribe.
- Simmons, L.: *The Role of the Aged in Primitive Society*. A general survey of the status of old people.

CHAPTER 23. Clubs and Age Groups

THE URGE to form clubs is not an exclusive trait of civilized men. Most primitives, too, have found the means to make life more intriguing, colorful, and meaningful through club life.

When we analyze clubs from a sociological point of view, we see that structurally they are just one form of association. In the definition of associations we find it useful to follow the line laid down by MacIver, who distinguishes associations from institutions in that an *association* is defined as a group specifically organized for the pursuit of special interests, while an *institution* is "the set method of procedure," the complex of behavior, characteristic of an association.¹

We shall treat clubs as those associations that are not based on the kinship factor, that have exclusive membership within the larger society, that definitely possess a formal institutional structure, and that engender a discernible feeling of congeniality among the members along with *esprit de corps*, or the "we-feeling."

Further, although it is traditional in anthropology to speak of Australian "secret societies," Plains Indian "military societies," and Pueblo Indian "curing societies," it will help eliminate confusion if we do not use "society" in the sense of club or association. It will be legitimate, however, to continue to call men's clubs *fraternities*, as is traditional anthropological usage in those instances in which clubs promote the social fiction of brotherhood among their members.

Finally, associations that include all the men of a given age range are known as *age groups*, *age grades*, *age classes*, or *age sets*. They are so important in certain parts of the primitive world that they will receive special attention in the latter part of this chapter.

¹ R. M. MacIver, *Society*, pp. 12-15.

SEX AND CLUB LIFE

The profusion of women's auxiliaries, bridge clubs, sewing circles, women's clubs, and women's leagues that is to be seen about us today leads some myopic observers to the conclusion that women are the sociable sex. It is doubtful, even within this club-ridden society of ours, that there are more women's clubs than men's or that men spend less time and activity in club life than do women. In the primitive world, however, there is no question but that men are the devotees of club life and women are not. The clubwoman of the modern civilized world is one of the revolutionary developments of recent times. There was nothing like her in earlier human history.

Women in primitive societies rarely participate in club life; sometimes they enter into men's organizations as auxiliaries. When they do have clubs of their own, they are weak counterparts of the vigorous organizations of the men. There are rarely all-embracing tribal associations of women, as there are of men.

Indeed, club life among primitive women is so undeveloped that Schurtz, who nearly fifty years ago gave anthropology its classic study of men's societies and age grades, advanced the theory that females are innately unsociable. They are inhibited in the formation of clubs, wrote Schurtz, because by instinct their activities and interests concentrate on reproduction, hearth, and home.²

This must be dismissed as androcentric prejudice. In its stead a cultural-functional explanation that is nearer the facts of human experience may be advanced. First, the demands of family nurture tend to isolate women and leave little leisure for club activities. American experience of the last few decades shows that given leisure and opportunity women take to club life. Second, primitive women, in addition to having little leisure for club activities, are in most male-dominated societies definitely discouraged from entering into the club systems set up by men. Nor do the men look with favor upon female imitations of their organizations. This is found to be true especially in tribes that link secret men's clubs with religious activities. Revelation of the secrets of ritual and hocus-pocus to women (and uninitiated boys) meant death in Australia, West Africa, and even among the matrilineal Pueblos of the Southwest. Women who might accidentally wander in upon the secret rites of Central Australian men's groups would probably still be speared upon the spot, as they would have been before the days of white police and courts. The men's secret clubs of the Banks Islands and certain other Melanesian tribes terrorize and bully the noninitiates (including all women).

When so much ado is made about the necessity of protecting the

² H. Schurtz, *Altersklassen und Männerbunde*.

sacred secrets from women and when the sanctions imposed upon women who happen to penetrate the secrets are so fatal, is it surprising that women do not expose themselves to such risks by undertaking the formation of clubs along the lines so jealously guarded by the men?

TRIBAL SECRET FRATERNITIES

Secret fraternities that include all the adult men of a society are called *tribal fraternities*. The adjective *tribal* serves to distinguish them from the more limited type of associations that are open to only a privileged few.

Tribal fraternities are a direct outgrowth of adolescence transition rites. Puberty rites, as we have seen, serve as bridges over the yawning chasms of anxiety that threaten men when they confront the crises of life. Those who have successfully bridged the chasms by passing through the rites of puberty do not necessarily organize into an association because of this fact. But because passage through puberty gives an exalted status of maturity and because puberty rites for boys and girls are almost always separate, all those men who have been made conscious of their newly achieved status by the rites are apt to crystallize their special status in an organized association. The puberty rite then becomes an initiatory rite. Such an initiatory rite is not only a transitional rite over a life crisis; it also opens the door into the fraternity of men.

Such rites emphasize the destruction of the preinitiation personality of the neophyte. As Webster long ago noted,

Almost universally initiation rites include a mimic representation of the death and resurrection of the novice. The new life to which he awakes after initiation is one utterly forgetful of the old; a new name, a new language, and new privileges are its natural accompaniments.³

A new name and a new language are not in fact always forthcoming, but seclusion from the women and children followed by "rebirth" are regular features of primitive initiatory rites.

The line to be drawn between mere puberty rites and tribal initiation ceremonies is not a sharp one. Whether we decide a ritual falls into one class or the other depends on whether it leads merely to the status of adult or whether it brings adult status *plus* membership in a specific association of adults. Sometimes there is an intermediary borderline condition on which it would be most arbitrary to make a classificatory judgment.

Thus, in the case of the Andaman Islanders' puberty rites, we contemplate solemn and elaborate but nonsecret rituals that effect status

³ H. Webster, *Primitive Secret Societies*, p. 38.

shifts for boys and girls. Full-fledged men are distinctly separated from fledgling boys, and they enjoy many perquisites of adult status. They seem to be bound together by the bonds of consciousness of their common privileges and interests. Yet they do not seem to form a men's fraternity.

On the other hand, in the case of the Central Australian tribes, the initiated married men form a domineering, tightly knit group, possessed of much secret lore and enjoying many lordly privileges, all of which indicates without doubt that here we have true tribal associations.

Aside from Central Australia and certain Melanesian groups, the great center for the development of tribal fraternities is Africa, particularly West Africa from Sierra Leone into Nigeria, the Cameroons, and the jungle region of the Congo.⁴ In Africa the subjugation and exclusion of women, so noticeable elsewhere, is much attenuated. Although the tribal associations may be exclusively for men, they often include women. And what is more notable, women frequently have powerful clubs of their own. In Sierra Leone and Liberia, although some men's associations admit females, no women's clubs admit men. In view of the greater social power and prestige of the men's organizations, when absolute exclusiveness breaks down there is more pressure from the women to penetrate the men's clubs than vice versa.

For West Africa the *porro* and *bondu* fraternities and sororities of such tribes as the Mendi and Temne of Sierra Leone and Liberia are most famous. All boys upon completion of their puberty rites enter the *porro*; the girls find themselves members of the *bondu*. Among the Kpelle tribe of Liberia, Westermann found that *porro* was the central integrating and controlling feature of all tribal life—family, religious, and political.⁵ The chief officer (grand master) of the *porro* outranks or rivals the king in effective political power and social prestige. Membership in the *porro* is prerequisite to marriage and to all other clubs and offices. Internally, the *porro* is loosely graded according to the general social status and ages of the members.

NONTRIBAL SECRET FRATERNITIES

Much the most notorious of the African secret fraternities are the limited and exclusive secret orders of the Leopard, Crocodile, Snake, or other beasts, reptiles, or birds. Of these the Leopards are the most feared. *Egbo*, *Ekkpe*, and *Ngbe* are but variant tribal names for the Leopard

⁴ W. D. Hambly, "Source Book for African Anthropology" (*Field Museum of Natural History, Anthropological Series*, Vol. 26, Part 2, 1937), p. 498.

⁵ D. Westermann, *Die Kpelle, ein Negerstamm in Liberia*, pp. 228-290.



Fig. 23-1. Tribal fraternities are a direct outgrowth of adolescence transition rites. Kpelle boys return to the village after *porro* initiation in the bush. Liberia, Africa. (Peabody Museum, Harvard University.)

order. Human sacrifice and cannibalism give a terroristic aura to the Leopards. Like the Ku Klux Klan they strike in the dark against their victims, who are selected because they have evoked the ire of the membership or merely because sacrifices are needed for fertility rites. The Leopard men wear leopard-skin cloaks. With wooden dies they make false leopard imprints in the earth to leave the impression that real leopards have seized the victims. With clawlike knives they mutilate and lacerate the flesh of their victims.

In some areas the Leopard and kindred orders have been reduced to more sociable activities by the authority of European powers. But the spring of 1945 saw the police of the Singida District of Tanganyika, Kenya Colony, East Africa, arresting some sixty natives in an attempt to break up the lethal depredations of the Lion Men and Lion Women. *The New York Times* on April 22, 1945, reported,

The slayings all follow a pattern. There is a scream in the night from a native hut. Fierce growls are heard. In the morning the body of the native is found some distance from his hut. It is slashed and clawed as if by a lion.

Examination of thirty-five bodies of victims satisfied medical men that the killers of six were real lions. The wounds on twenty-eight were made by knives and other sharp instruments in imitation of the teeth and claws of beasts.

Investigators who question the victim's neighbors find them reluctant to talk.

The functions of African secret orders are by no means wholly homicidal. Their bloody activities are only incidental to deeper-lying interests. The associations are mutual-aid organizations that have taken on important social control responsibilities in addition to their magical, religious, and merely social aspects.

They counterbalance the power of the king and work to keep royal tyranny in check. Unquestionably, they serve at times as the people's solution to the trying problems that result from the need to temper anarchy with monarchy, which in turn must be stopped short of despotism. Within the framework of the tribal constitution the secret orders are often cited as assisting the king in the application of the sanctions that uphold the tribal laws.⁶

As mutual-aid protective associations the secret orders of West Africa pay especial attention to the interests of their members as against the world at large. They collect private debts from delinquent creditors on behalf of their members. They punish other transgressions against the brotherhood as well. In some sections of Sierra Leone the overextension of these practices into exploitive terrorism has caused violent public reactions, resulting in the outlawry of such clubs as the Leopard by the tribal chief.

Experience proves that secret orders are dangerous devices for use as instruments of government and social control. With the best of intentions they may serve the public weal, but since the members are not publicly accountable for their acts, there can be no safe check on the inevitable temptation to use their heady power in their own selfish interests. Exclusive secret orders are inherently corruptible and corrupting in any society, be it *Egbo* in Liberia, *tamate* in Banks Islands, or Ku Klux Klan in the United States.

Secret clubs of a purely congenial, ceremonial, or magico-religious nature are generally exempt from such strictures. Thus, in Dahomey, where the power of the king appears to have become sultanistic in its strength, all secret orders were banned by royal edict. The king brooked no opposition or competition. There was, however, no objection to the banding together of men for mutual aid, as long as it was not done secretly. The Dahomean *gbe* was (and is) organized by a group of young men, not necessarily of the same age group. They socialize together, but the basic function of their organizations is to enable each member to make more impressive displays at weddings and funerals by calling upon the resources of all other members not in excess of a stipulated sum.⁷

⁶ Cf. Webster, *op. cit.*, pp. 115-120; R. H. Lowie, *The Origin of the State*, pp. 91-94.

⁷ M. J. Herskovits, *Dahomey*, Vol. 1, pp. 250-253.



Fig. 23-2. Structural framework of a men's clubhouse. Maipua, Gulf of Papua, New Guinea, Melanesia. (*Chicago Natural History Museum.*)

Women may belong to such clubs, or they may have separate clubs of their own. In effect, these secular nonsecret associations are exactly comparable to our own cooperative credit unions.

The various pueblos of the Southwest each have their several secret fraternities whose main functions are to perform masked *kachina* dances impersonating the gods and to perform complex rituals according to calendric cycles. The dances and rituals are performed for the benefit of all the people. Most of the ritual and accompanying liturgy is secret among the initiated members, but public dances are also performed. Thus, the village *cacique* (sacred chief) of Sia Pueblo calls upon the Flint fraternity to perform the Stick-swallowing Dance on behalf of the whole pueblo. As the dancers shove sticks down their throats the dance imitates the poking of planters' dibbles into the ground and works to ensure a good spring sowing.

The functions of such fraternities in the pueblos are wholly religious, magical, and ceremonial. Only as the high-ranking leaders of all the secret orders form an ecclesiastical council do they enter into the governing of men.

Among the Indians of the Northwest Coast, secret ceremonial associations also play an important role in the lives of the people.⁸

SECULAR ASSOCIATIONS

Purely secular organizations, given to furthering nonmystic interests and not concerned with terrorizing women and children, have no compulsive need to surround themselves with secrecy.

Such were the military and dancing clubs of the Plains Indians. These associations of warriors were fellowships for conviviality among men whose warlike flame was sustained and fanned by the stories, the rituals, the song and dance of their lodges. Their basic interests were two: warfare and congeniality. Their good times were not in roistering, but in the quieter glow that builds up in companionate smoking of a joint pipe, huddled singing about a thumping drum, parading two by two in all their finery upon their best horses, or dancing for all the tribe to see.

Although the Plains Indian men's clubs are commonly called "military societies" they were military only in the sense that the American Legion or the American Veteran's Committee are military—their members were all fighting men. Rarely did the Plains Indian men's clubs go to war as units. They did not form regular segments of an army, for Plains Indian fighting was too individualistic for that, but they idealized and glorified war and labored to sustain the war ideal among their members.

Their officers were "chosen to die." In battle they planted their insignia—a crooked spear like a shepherd's crook or a trailing shoulder sash that could be pegged to the ground—in the face of the enemy. From that spot they could not retreat unless a fellow member dashed into the melee to pull up the peg or staff. Nominees for such offices were sometimes as bashful toward acceptance of the honor as are some of our own presidential nominees. Witness what Lowie was told by the Crow Indian, Young Jackrabbit.

All declined to smoke, then they came towards me. Some one asked them, "Whom are you looking for?" They answered, "Young Jackrabbit." I was seated in the rear and tried to hide. They brought the pipe to me, but I refused to accept it. One of the pipe-carriers was my own older brother. He seized me by the hair, struck my chest, and said, "You are brave, why don't you smoke the pipe?" He wished me to die, that is why he desired me to smoke the pipe. He said, "You are of the right age to die, you are good-looking, and if you get killed your friends will cry. All your relatives will cut their hair, fast and mourn. Your bravery will be recognized; and your friends will feel gratified." I took the pipe and began to smoke. They asked me whether I

⁸ Cf. F. Boas, *Social Organization and Secret Societies of the Kwakiutl Indians* (United States National Museum, Reports, 1895).

wished to have a straight or a hooked-staff. I chose the hooked-staff. My comrade also smoked the pipe.⁹

Plains Indian men's clubs have been classified into ungraded and graded types. The ungraded, which occurred among the Crow, Cheyenne, Kiowa, Wind River Shoshone, and other tribes, were voluntary associations open to all men without regard to age. A man needed merely a sponsor within the club; he also gave "presents" to the club upon his entry. There was no initiation.

The number of such ungraded clubs varied in different tribes. The Crows, in 1833, had eight. Toward the end of the century this number had been reduced to only two active ones, the Foxes and the Lumpwoods (Knobby Sticks).¹⁰ The Cheyennes had six clubs: the Fox, Elk, Shield, Bowstring, Dogs, and Northern Crazy Dogs.¹¹

The graded associations occurred only among Mandan, Hidatsa, Arapaho, Gros Ventre, and Blackfoot. Each of these tribes had a system of associations that were graded in a prestige hierarchy from young to old; age qualification was prerequisite to membership in all cases. Normally, every member of a tribe, if he lived long enough, would pass through all grades. The higher grades naturally had progressively smaller membership, which, combined with the increasing age of the membership, gave greater prestige.

Movement from one grade to another was by collective purchase of all the rights and paraphernalia of the club just above. Among the Hidatsa, for example, all the adolescent boys banded together and, aided by their families, made a great collection of hides, arrows, parfleches, etc. After indicating to the Kit Foxes, the lowest club, that they wanted to buy, arrangements would be made for ceremonial payment and transfer of the club to the upstarts. In addition, each neophyte chose a ceremonial father, or sponsor, who had to be a member of the neophyte's father's clan, from among the members of the Kit Foxes. To this man he offered gifts and entertainment—including his wife if he had one. The ethics of ceremonial wife lending were mixed, however. The gesture had to be made, but most ceremonial fathers were "afraid" to use the privilege.

Thus each candidate had to make individual payment to join an age society, but at the same time it was absolutely necessary that his age group act collectively to acquire the rights to the club. Such clubs were, therefore, joint incorporeal property transferable only by sale (see pages 447-448). Northern Plains Indian age associations are not pure age grades or age classes, i.e., a series of groups each of which is automatically composed of all the persons of a given sex and approximate age. After an in-

⁹ R. H. Lowie, *The Crow Indians*, pp. 177-178.

¹⁰ R. H. Lowie, "Societies of the Crow, Hidatsa, and Mandan Indians" (*American Museum of Natural History, Anthropological Papers*, Vol. 11, 1913).

¹¹ K. N. Llewellyn and E. A. Hoebel, *The Cheyenne Way*, p. 99.

cumbent group of Hidatsa Kit Foxes sold their club to the next younger group, they were without any club organization until they succeeded in purchasing the Half-shaved Head club from the group above them, who then had to purchase from the Dogs, who had then to purchase from the Lumpwoods. So it went up the line, until the oldest men entered the Bull club.

The element of age grading in the Plains is a piece of fancy embroidery that was added by the more sophisticated sedentary gardening tribes of the Upper Missouri Valley to the simpler ungraded complex as seen among the nomadic tribes. From the Mandan and Hidatsa the pattern spread to the Arapaho, the Gros Ventre, and ultimately the Blackfoot. The breakdown of aboriginal Plains culture came before the complex could spread farther.¹²

In the Plains there were also women's clubs. Women joined in military association festivities on many occasions. Indeed, numerous tribal systems included a few female functionaries within the men's clubs. Each Cheyenne unit had four unmarried virgins with ritual responsibilities who were called "sisters" by the members. But aside from participation in the men's clubs, women had orders of their own. Cheyenne women who had quilled thirty buffalo robes with porcupine-quill embroidery could join a club of robe quillers.¹³

AGE CLASSES

Age classes, or *age sets* (as they are called by English anthropologists), occur in their most highly developed form in Africa. The Nandi of Kenya Colony may be taken as an illustrative example. There are a number of

¹² Lowie worked out a classic age-area distribution study directed toward historical reconstruction of the development of such clubs. See his "Plains Indian Age Societies" (*American Museum of Natural History, Anthropological Papers*, Vol. 11, 1916), pp. 877-984. This famous paper culminated the synchronized study of Plains Indian military associations instituted by the American Museum of Natural History under Clark Wissler in the early decades of this century. Leslie Spier's "The Sun Dance of the Plains Indian" (*American Museum of Natural History, Anthropological Papers*, Vol. 16, Part 7, 1921) did the same for the museum's comprehensive comparative study of the sun dance among Plains Indians. Both papers represent the height of the Boasian "school of historical reconstruction." The meticulous and painstaking methodology represented in these studies was a healthy corrective to the over-easy generalizations of nineteenth-century evolutionists. But the approach is limited by the inherent deficiencies of fact that hamper the scholar who would infer the development of institutions without historical documents. The techniques of historical reconstruction remain essential tools of modern anthropologists, but problems of historical reconstruction are not primary interests today. Emphasis has shifted to problems of dynamic interaction within societies, but such problems can never be adequately handled without historical understanding.

¹³ G. B. Grinnell, *The Cheyenne Indians*, Vol. 1, pp. 159-169.

grades of males in this tribe. The first grade is that of the uninitiated boys. For the scion of a wealthy family initiation may occur as early as ten years of age. Or a youth may be nearly twenty before he is put up by his family for initiation. Initiations, which occur every seven or eight years, are the highlight of tribal life and a rough time for the boys, who, as if circumcision were not enough, are beaten with stinging nettles and stung with hornets. Part of the initiation includes military instruction, because after initiation the boys become warriors. The initiated group receives name emblems and ornaments. War formerly was their chief concern; they could play at love and enjoy sex, but they were not to be fretted with the responsibilities of marriage and children. After four years of experience, they were ready to "receive the country" from the elder grades. The age class above them, which was retiring from active warrior status, laid aside its warrior clothing, assumed the raiment of elders, and could then marry and settle down to connubial domesticity. This is not of an exclusive sort, however, since in formal custom each married man is expected to extend the hospitality of his home to any visiting classmate. Hospitality to a Nandi means wife lending, a gratuity he will deny to all who are not members of his own age class.

As a class advances in age it ultimately enters the body of statesmen and tribal advisers.¹⁴

To the south, in the Bechuanaland Protectorate, the Swazi, a nation related to the better-known Zulus, reveal an age-class system remarkably similar to that just described. In the Swazi system, however, the whole organization is tightly controlled by the national king, who utilizes the classes of fighting age as regiments in a standing army and as work corps in time of peace. Like the Nandi warrior, a Swazi man cannot marry until his class graduates to the grade of elders.¹⁵

Age classes in Africa have been made to serve well as devices of social integration and efficiency. They cause greater internal segmentation, it is true. But it is a segmentation that promotes specialization of function along effective lines. It harnesses the energies of youth to the ends of the society and gives to each age group a strong awareness of its own status. In even so widely dispersed and scattered a population as the Nuer in the Nilotic Sudan, who have only the weakest of tribal structures in spite of the fact that they number over 100,000 persons, the age-class system is one order of organization that runs through all the tribes of the nation. In a generally undeveloped social and political structure, Nuer age classes are necessarily lacking in the qualities that distinguish their counterparts in Nandi and Swazi. As Evans-Pritchard reports,

¹⁴ A. C. Hollis, *The Nandi*. For an excellent detailed study of three variant systems of East African age classes, see A. H. J. Prins, *East African Age Class Systems*.

¹⁵ H. Kuper, *An African Aristocracy*, pp. 117-136.

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The age-sets have no corporate activities and cannot be said to have specific political functions. There are no grades of "warriors" and "elders" concerned with the administration of the country, and the sets are not regiments, for a man fights with the members of his local community, irrespective of age. In the rites of initiation there is no educative or moral training. There is no leadership in the sets.¹⁶

What then do they do? They fix and emphasize the status of all males toward other males as equals, juniors, and seniors. They are merely weak counterparts of the functionally more significant age classes to the south of them.

In sharp contrast to the weakly developed Nuer age classes, stand those of the Nyakyusa, who live on the northwest shores of Lake Nyasa. Little Nyakyusa boys of six to eleven years of age band together to herd their fathers' cattle. While engaged in this activity, they are together on the range during their waking hours for several years. When they reach twelve or so, they leave off herding to take up the hoe in the gardens of their fathers; they then move into a village of older boys, no more to sleep at home. They return to the parental homestead for meals, but only when accompanied by a group of their age mates. Boys should associate with boys even when visiting their parents. Theirs is the life of a tightly knit juvenile gang, but without the element of gangsterism. For them there is no need to express hostility to the adult world. Their culture moves them steadily and early into the shouldering of the responsibilities of men through the concerted activities of youth.

When the young men begin to reach the age of twenty-five, one by one they marry. Each brings his wife into the age village of his peers, and what was once Boys' Town is gradually transformed into a family village of husbands, wives, and their children. Its unique quality is that all the men of the village are of an age. Now each youth receives his own fields from his father, and he ceases to return to his parents' house for meals, eating instead under his own roof food prepared by the hands of his wife rather than his mother.

In another ten years, when all the villages of a given age level within a district have matured, the formal government of the territory is ritually handed over to them, and they rule the land while their new generation of sons begins anew the process, breaking off to start the formation of their own age villages-to-be.

In Nyakyusaland the age class is more than an auxiliary to the kinship group, or segment of village life. While closely linked to his primary conjugal family in many ways, the Nyakyusa boy begins the severance of the primary family strands long before he is ready to start a family of his

¹⁶ E. E. Evans-Pritchard, "The Nuer of the Southern Sudan," in *African Political Systems*, p. 289.

own, and his age class becomes the core of the social structure of his entire society.¹⁷

SUMMARY

The club-forming impulse finds expression, especially for males, in virtually all societies. The structure of club organization is variable from culture to culture, but everywhere the principle of association works to cut across divisive kinship lines and bind the men together in mutual enterprise and social brotherhood. Except as they become sharply exclusive and selfishly vested in their interests, they work to integrate the society and lend color and interest to the round of life.

SELECTED READINGS

- Llewellyn, K. N., and E. A. Hoebel: *The Cheyenne Way*, Chap. 5, entitled "The Military Societies." A case study of Cheyenne Indian men's clubs in operation.
- Lowie, R. H.: *Primitive Society*, Chaps. 10 and 11, entitled "Associations" and "Theory of Associations." An excellent comparative discussion of clubs and age groups in several primitive societies.
- Webster, H.: *Primitive Secret Societies*. An old, but valuable work.
- Wilson, M.: *Good Company: A Study of Nyakyusa Age-Villages*.

¹⁷ M. Wilson, *Good Company: A Study of Nyakyusa Age-Villages*.

CHAPTER 24. Social Classes and Castes

THE communist doctrine of class antagonism and its accompanying dogma of class struggle pose one of the great challenges of the age to contemporary humanity. A clear understanding of what classes are and how they act in different types of societies is absolutely essential to a rational meeting of the challenge. Are there any societies that are classless? Are classes in primitive societies at war one with the other? Are they given to exploitation of other classes? Is slavery a primitive institution or one that is characteristic of certain orders of civilization? These are some of the questions upon which anthropological findings may be brought to bear.

THE NATURE OF CLASSES

"The concept of class is concerned with the social differentiation of groups."¹ But if a clean-cut definition is asked for, the problem of what *kind* of groups is one that poses a knotty question. In its broadest sense a class would cover any category of people within a population who possess some diagnostic trait in common. All people whose feet take 10B shoes would constitute this sort of class. This is not what is meant by a social class, however.

The working criteria of social class are both objective and subjective. Economic determinists emphasize the objective criteria of relationship to the instruments of production; i.e., ownership or nonownership of land and capital. This is the Marxian choice. Max Weber includes economic criteria in his analysis of class, but he adds also the nature of the external standard of living (which is only indirectly related to the possession of economic means), plus cultural and recreational opportunities. American sociologists, reflecting the more fluid and blurred nature of classes in our society, emphasize the subjective nature of class. There are no social classes but thinking makes them so. MacIver declares,

¹ P. Mombert, "Class" (*Encyclopedia of the Social Sciences*, Vol. 3, 1930), p. 531.

We shall mean by a social class any portion of a community which is marked off from the rest . . . primarily by a sense of social distance. Such a subjective character involves as a rule objective differences, income levels, occupational distinctions and so forth, within the society. But these differences, apart from a recognized order of superiority and inferiority, would not establish cohesive groups. It is the sense of status, sustained by economic, political, or ecclesiastical power and by distinctive modes of life and cultural expressions corresponding to them, which draws class apart from class, gives cohesion to each, and stratifies a whole society.²

A social class is, therefore, a group within a society, whose members hold a number of distinctive statuses in common and who, through the operation of the roles associated with these statuses, develop an awareness of their like interests as against the unlike traits and interests of other groups. A social class can exist only with reference to other social classes. A one-class society is necessarily a classless society. Furthermore, if there is no consciousness of class, there can be no dynamics of class action; then the classes will have no functional significance. People must act in terms of class if the class concept is to be functionally significant.

Finally, there are a number of things that a social class is not. It is not organized. Classes are not in themselves associations. But there may be, of course, associations representing the interests of specific classes, as the AFL-CIO does for certain segments of the industrial workers in this country, or as the NAM does for a portion of the industrial owners and manufacturers. Yet even in Russia only a small part of the proletariat is organized within the Communist party and its affiliate associations.

CLASSES IN PRIMITIVE SOCIETY

There is clearly a direct and positive correlation between the degree of complexity of culture and the presence of social classes. Rude simple cultures do not provide the basis for differentiation of function and role sufficient to produce class identifications. Eskimos, Andaman Islanders, Australians, Semangs, Veddas, Great Basin Shoshones, Fuegians, and African Bushmen are conspicuously free of social classes. There is no possibility of the accumulation of capital goods; all persons have equal access to all natural resources; and none have notable political power over others. Victory in battle does not lead to conquest; slaves are not taken, nor do the victors saddle themselves on the necks of the defeated. A worker in a food-gathering economy produces no surplus beyond what it takes to feed himself. On this level of production there is nothing to be gained from enslavement.

The probability is that the majority of hunting societies are also class-

² R. M. MacIver, *Society*, pp. 78-79.

less. Certainly this is true of North and South America, except for those tribes who kept captive slaves.

Plains Indians. Among the Plains Indians a nascent sense of class was noticeable. Grinnell wrote,

Family rank, which existed among the Cheyennes as among other Indians, depended on the estimation in which the family was held by the best people. A good family was one that produced brave men and good sensible women, and that possessed more or less property. A brave and successful man has raised his family from low to very high rank; or a generation of inefficient men might cause a family to retrograde.³

But there was no real social gap between good and not-so-good families. The poor, instead of being driven into servitude to the upper crust by means of debt, wage dependence, or clientage, seem rather to have sponged upon the chief, the successful hunter, and the taker of war booty.

Similar ideas exist among the Western Apache who distinguish sharply between a class of poor people and the rich. "Those who had little or no property, lacked the ability or desire and energy to accumulate it, and had no social prestige were termed poor; the people with opposite traits were called rich." Poverty is pitied and the wealthy are expected to be generous with largesse. For this they receive public approval and hangers-on among the poor, who are then called *bidigishi*, "his incompetents or weaklings."⁴

Out of such elemental notions of class differences the Kiowa Indians of the Plains developed a strong sense of class ranking. Four classes were recognized by name: *onde*, *ondegupa*, *koon*, and *dapom*. The *onde*, who constituted about a tenth of the population, were those whose family heads were handsome on a horse, wealthy and generous, proud in bearing, and courteous in demeanor, but above all, possessed of an outstanding war record. The *ondegupa* were the able artisans, hunters, herders, and medicine men, who had wealth and were generous, noble in character and behavior, but lacking in sufficient war credits. They made up a third of the tribe. The *koon* were the common stuff, undistinguished in war or other accomplishments. They lived with their more illustrious kinsmen as poor relatives. Half the tribe was lower class. The *dapom* were simply *déclassé*. Shiftless and lazy, they filched and stole within the camp. Practically disowned by their own relatives, they were virtual outcasts. They sucked upon the generosity of the good people; theft was not looked upon or treated as a legal infraction. The *dapom* was not punished or

³ G. B. Grinnell, *The Cheyenne Indians*, Vol. 1, p. 129.

⁴ G. Goodwin, *The Social Organization of the Western Apache*, pp. 541-543.

extruded from the group. He was merely scorned and suffered to be borne.⁵

Northwest Coast. Class was more marked on the Northwest Coast of North America, where in every tribe a sharp division existed between freemen and slaves—unfortunates captured from other tribes. In the early nineteenth century slaves numbered 10 to 30 per cent of the total populations of various Northwest Coast tribes. They were in effect a depressed caste whose function was by hunting and fishing to produce food for their masters and to do the menial work around the village, as well as to paddle the seagoing canoes. Whatever their rank in their own tribe, all slaves were reduced to the level of productive capital in the tribe of their masters. Just as any valuable good, a canoe or copper, could be destroyed at a potlatch, slaves too could be killed to show their masters' unconcern for wealth.

Most authorities have described the body of freemen in Northwest Coast society as consisting of two classes: nobles and commoners. Nobles were those men and their wives who had attained the rank of chieftain through the inheritance of chiefly titles, which they had validated by potlatching. Since most tribes held to primogeniture, the nobility consisted of first-born, while subsequent children or nephews (in matrilineal societies) became commoners. Among the Tsimshian, according to Jenness, distinctions were drawn even finer. Intermarriage among the first-born children of the highest-ranking families of the nobility was reputedly obligatory, so that there was even an endogamous "royalty" within the nobility.⁶

Drucker, who has studied Northwest Coast culture at first hand, takes issue with the orthodox view of Northwest Coast social classes. He flatly maintains that there was no class of nobility set off from a class of commoners, much less a three- or fourfold class system. What actually occurred as he sees it was "that each society consisted not of two or more social classes, but of a complete series of statuses graded relatively, one for each individual of the group."⁷ He argues that between high and low there were differences in degree but not in kind.

This particular conflict of interpretations is not resolvable; it merely points up the ambiguity of the concept of class in certain settings. It precisely parallels the situation in which most Americans argue that we have

⁵ J. Richardson, *Law and Status among the Kiowa Indians* (American Ethnological Society, Monograph 1, 1940); B. Mishkin, *Rank and Warfare among the Plains Indians* (American Ethnological Society, Monograph 3, 1940).

⁶ D. Jenness, *The Indians of Canada* (National Museum of Canada, Bulletin 68, Anthropological Series, No. 15, 2d ed., 1934), p. 337.

⁷ P. Drucker, "Rank, Wealth, and Kinship in Northwest Coast Society" (*American Anthropologist*, Vol. 41, 1939), p. 57; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 214-221.

no social classes, at the same time that Warner and his coworkers are assiduously dividing us into Upper upper, Lower upper, Upper middle, Lower middle, Upper lower, and Lower lower (than which there are no lower) classes.⁸

Aztec. Among the peoples of high culture in Central America and the Andean region of South America, class differentiation was strongly fixed.

The Aztecs in their meteoric rise and fall developed from an apparently classless unsegmented society with a rude material culture, prior to 1300 A.D., to a highly organized, sophisticated protocivilization in the fourteenth century. At the time of the arrival of the Spaniards in 1518 they were rapidly evolving a feudal aristocracy at the expense of the earlier clan socialism. The society then consisted of royalty, nobility, common freemen, propertyless proletariat, and slaves.

The core and largest part of the Aztec population was the body of free commoners, members of one or another of twenty localized clans (*calpulli*). Every married man enjoyed the right to cultivate a plot of clan garden land and to have a flat-roofed, dingy, one-room hut of adobe or clay-plastered wattle. He might become a craftsman specializing in one of the many productive arts and trades. He had security and continuous employment and an obligation to perform military service. But he was hedged in by a code of sumptuary laws that reserved to the rich and to distinguished warriors and officials the rights of wearing fine cotton, jewelry, and particular hairdos. Presumption above one's rank was summarily and severely punished. The upper classes in Mexico were not harassed by a dizzily whirling style cycle, in which the pace setters must have a new fashion every two or three years in order to keep ahead of the imitative masses.

Class distinctions cut across kinship groups, for the class of honorary lords was recruited from all clans. They formed a nonhereditary order of merit with various grades conferred by the government as a lifetime reward for outstanding military accomplishment, service in civil office, service to the state as a traveling merchant-spy, or exceptional religiosity. They wore the beautiful and elaborate costumery depicted in Aztec art. They lived in the mansions of Tenochtitlan. They received homage and led a rich life apart from their common fellow clansmen. In theory, the huge parcels of conquered lands that they received as rewards for their services could not be inherited as family estates. All such rewards were to be redistributed to a new worthy after the death of the holder. This was always done, but, by a process not difficult to understand, a system of preference was crystallizing whereby sons of nobles were appointed to their fathers' positions of nobility. Inheritance of rank and landed estates were thus leading rapidly to the freezing of a hereditary aristocracy.

⁸ W. L. Warner and P. S. Lund, *The Social Life of a Modern Community*.

Above the nobles in luxuriant splendor stood the royal lineage from among whose members the *tlacatecutli*, or king, was elected by the great council of lords.

Far below the royalty and nobles was the hapless proletariat. Aliens whose goods and lands had been expropriated by the state, and Aztecs who had lost their clan privileges for failure to fulfill clan obligations eked out a meager and sweaty existence as burden-bearing coolies on the streets of the city and roads of the country. Or they grubbed for their livelihood upon the estates of the lords. Taxes and feudal services left little to them.

Slavery was the lot of impecunious Aztecs who could not meet their bills. In like manner crooks who could not make restitution for their thefts became the slaves of the freemen they had victimized. Children were sold into slavery by impoverished parents, and even adults among the proletariat might voluntarily sell themselves into servitude. Many slaves were alien boys and girls taken as tribute from conquered neighbors.

The society of the Aztec Indians was on the road to the same type of pyramidal, exploitive society that is so familiar to us in the flourishing days of the archaic Mediterranean civilizations. The Aztecs, however, had not hardened the inequalities of their society. Children of slaves were born free (into the proletariat); slaves could not be killed or abused by their masters; they could even acquire property in their own right (although it is not likely this opportunity meant much to many slaves); they could not be sold to another master except by self-consent; and if married by master or mistress they became freemen.⁹

Natchez. To the north, where now stands the charming city of Natchez, Mississippi, lived a gardening tribe that gave its own peculiar twist to the Central American concepts of religion and social classes. This was the Natchez tribe, an outstanding member of the great southeastern Muskogean language family.

The Natchez people were devoted worshipers of the sun, and their towns were dominated by small pyramids at either end of a plaza. Upon each mound was a temple or the dwelling of a priest-chief. Each morning the Sun of Suns, exalted ruler, brother of the celestial sun, greeted his illustrious ancestor before the Sun Temple. In another temple was tended the perpetual sacred fire of the village.

The people, as was usual in the Southeast Woodlands, were divided into moieties. What was unusual about Natchez moieties was their unequal social positions. Reciprocity in dual organization had become neglected in favor of aristocratic exaltation. The result was a monstrosity in social organization. Interest in aristocracy as a principle had produced a

⁹ G. C. Vaillant, *Aztecs of Mexico*.

threefold subdivision of the aristocratic moiety into Suns, Nobles, and Honored People. For the common moiety there were no such grandiloquent names. They were all Stinkers. The meager material culture of the Natchez allowed for no such economic ostentation as the Aztec royalty and nobility drew to themselves, but the social superiority of the Natchez Suns and Nobles colored the behavior of all life in the tribe.

A startling Natchez rule was that the aristocrats had to marry *outside* the aristocracy; there was no alternative for them but to marry Stinkers. Such a rule is compatible with the principle of moiety exogamy but not in the least with the principle of aristocratic exclusiveness. Indeed, a recent criticism of the traditional scheme of Natchez social organization has centered upon the objection that the scheme is impossible as a reality, since in a few generations' time almost everyone would be aristocrats. A truly comic-opera situation would result, and the system would be self-liquidating.¹⁰ This is because in all intermoiety marriages, except that of Honored Person with Stinker, the children were born aristocrats. The population of Stinkers would not be self-replacing and would soon be exhausted.

If we look at the descent system in more detail, we find that when aristocratic women married, their children belonged to the same moiety and class as the mother. When aristocratic men married, their children were debased one grade; thus, the children of a Sun male married to a Stinker female became members of the Noble class. When the boys of this group married Stinker women, their children in turn became members of the Honored class. When Honored men married Stinker women their offspring dropped out of the aristocracy to become common Stinkers (Fig. 24-1). The effect of the system is one in which the children of the highest-ranking class are downgraded gradually instead of in one harsh jump. Here we have a recognition of the fact that a higher nobility must

¹⁰ C. W. M. Hart, "A Reconsideration of the Natchez Social Structure" (*American Anthropologist*, Vol. 45, 1943), pp. 374-386.

Wife	Husband	Offspring	Wife	Husband
Sun	All	Suns	All	Sun
Noble	husbands	Nobles	wives	Noble
Honored	are	Honored	are	Honored
Stinker	Stinkers	Stinkers	Stinkers	Stinker

Fig. 24-1. Marriage and descent in the Natchez class system.

continue to distribute its surplus members back into the ranks of the commoners to prevent undue overcrowding at the top.

The rule of exogamy did not apply to Stinkers. If not espoused to an aristocrat, a Stinker could marry a Stinker, and their children assumed that status. There was nothing lower than a Stinker.

Hart's contention that the Natchez social system was inherently self-destructive rests on the assumption of a stable population. Contrary to this, Quimby has effectively brought together historical and archaeological data to demonstrate that the Natchez actually replenished the Stinker moiety by absorption of shattered remnants of neighboring tribes decimated by enemies. Adopted foreigners were always Stinkers.¹¹ Quimby's excavations in Natchez sites indicate that the Natchez archaeological culture came into its own around 1600 A.D.¹² The French smashed the Natchez nation in three wars between 1716 and 1731, annihilating hundreds. Nearly 500 Natchez captives went as slaves into Santo Domingo, while surviving remnants were sheltered by the Chickasaw and the English colony of South Carolina. It is thus likely that the unique Natchez class system was a social mutation sustainable for a short period by absorption of outside populations but inherently incapable of long enduring. Its social survival value was negative. That it was not an ancient system is indicated by the fact that it did not occur among any other tribes of the Southeast, who were essentially similar in other fundamentals of culture.

Indonesia. When we turn our attention to the Pacific area, we find that the rice-culture societies of Indonesia (outside the areas of strong Hindu influence) are almost all democratically organized communities of persons who hold their land in usufruct from the communally owned territory. Communities are congeries of kinsmen among whom no class distinctions are drawn. But the Indonesian village tends to form a closed society. Indonesians from other parts may obtain permission to live and work land in a strange community, but they may not enter into the political democracy; they remain residents without franchise, tolerated members of the village but not citizens. Aliens thus form a class apart, and it takes many generations for a family finally to enter the inner circle of First Families. In most parts of the Indies, until recent years, slaves taken in war formed another class.

Wherever Hindu princedoms were established in Indonesia (900-1300 A.D.) great gaps of social distance between Hinduized masters and the lower castes and classes were formed. In Javanese-Balinese court etiquette several different forms of language, to be used according to the rela-

¹¹ G. I. Quimby, "Natchez Social Structure as an Instrument of Assimilation" (*American Anthropologist*, Vol. 48, 1946), pp. 134-136.

¹² G. I. Quimby, "The Natchezan Culture Type" (*American Antiquity*, Vol. 7, 1942), pp. 255-275.

tive social positions of the persons engaged in conversation, gave a strong flavor to notions of superiority and inferiority.¹³ Multifarious rules of behavior keep relations of higher and lower class people rigidly formal.

Polynesia. In Polynesia, native usage tends to run to class distinctions hedged in by much preferential etiquette. All Polynesians recognize a divine nobility, a gentry, a body of commoners, and slaves. Direct descent from a god gives a claim to nobility and innate mana to the class of sacerdotal chiefs. In democratic Samoa, the social and political power of the nobles is limited and subject to personal modification. In Hawaii, Tonga, and Tahiti, on the other hand, the sacredness of royalty before the days of white dominion was such that all the king touched became tabu to lesser men. Commoners were humbled before the royalty in the few contacts they had with it. Relations approached the feudal in nature. In Tonga, commoners paid in kind for the privilege of using their local chief's land. He in turn passed on some of this wealth to the higher chiefs.

In Samoa, deemphasis of divinity was accompanied by emphasis upon craft skill, so that occupational guilds tended to enjoy the functional role played by royal classes elsewhere in the area.

Melanesia. In the western and interior parts of Melanesia inhabited by the more primitive Papuans, social classes as such are practically nonexistent. In the eastern islands, where the Melanesian-speaking people predominate, differentiation into social classes is characteristic, even though there are classless tribes such as the Dobu. The actual governing of men throughout Melanesia is usually in the hands of a council of village elders, but there is commonly a class of wealthy chiefs who enjoy much social prestige by reason of their economic, ceremonial, and religious, if not political, powers.

Melanesian chiefs are almost always an immigrant group that has bamboozled the local populace into believing that because they have superior magical powers and control valuable ritual that will benefit the community (and that can be used to threaten the indigenous natives if they do not behave), it is only right that the chiefly class shall enjoy exalted sanctity and privileged superiority. The chiefly class is also universally regarded by the people and themselves as a class of feast givers and ceremonialists who reflect glory upon their people.

Fiji, on the Melanesian-Polynesian border line, is typical enough. About ten generations ago a group of warriors moved into the island of Lau. They may have muscled in with forceful measures, but present tradition has it that the local population accepted them as "civilizers" who brought light (*rarama*) to those who were living in darkness (*mbutombuto*).

¹³ E. M. Loeb, "Javanese Word Formation, High and Low" (*Journal of the American Oriental Society*, Vol. 64, 1944), pp. 113-126.

The primordial clan system of the original people was reworked into a graded hierarchy in which every clan stood in a definite relationship to every other clan. Clans descended from the immigrants formed the chiefly class (*yavasu turanga*), and clans descended from the original indigenous population formed a peasantry, or "land class" (*yavusa vanua*). Through intermarriage the sibs of the newcomers also have acquired some land, but in this instance there has been no expropriation of the lands belonging to the lower class. Sibs of the land people still own most of the land. They also show more interest in gardening, while they are excelled by the chiefly class in sailing, fish spearing, and craftsmanship.¹⁴

Africa. In Africa the range of social differentiation is from homogeneous democracy, as exemplified by the Nuer, to heterogeneous conquest states with formal caste systems. In illustration of the latter we shall take the Kingdom of Ankole in Uganda as an example of East African stratified societies.

The basic caste division in Ankole is between pastoralists calling themselves *Bahima* and gardeners known as *Bairu*. The Bahima are Hamitic or Hamiticized Negro cattle people, who came down the grassland corridor between Lake Victoria on the east and the mountain and lake chain on the west. Their original home was probably southern Abyssinia. Racially and culturally they were and are distinct from the Bantu horticulturalists, who had preceded them in occupation of the country. As they moved southward, the Bahima proved themselves as fighters to be superior to the Bantu-speaking Bairu and capable of effective enlargement of their social groups for politico-military ends. They conquered the Bairu and proceeded successfully to subjugate them, without apparent difficulty, although the Bairu outnumbered them ten to one.

Unbreachable disabilities were imposed upon the Bairu:

1. All Bairu are forbidden to own fecund cattle. It is true that they are sometimes given barren cows or bull calves for services rendered a Muhima,¹⁵ but any Muhima can arbitrarily expropriate any productive cows found in the possession of a Mwiru.

2. While all Bahima males were liable to be called for military service, the Bairu were barred from bearing arms. They were kept militarily ineffective, and the chances of successful revolution were kept at a low level.

3. There can be no intermarriage between Bahima and Bairu. Aside from the customary prohibition of intermarriage, the injunction against

¹⁴ L. Thompson, "The Culture History of the Lau Islands, Fiji" (*American Anthropologist*, Vol. 40, 1938), pp. 185-189.

¹⁵ In Bantu speech the prefix "Mu" refers to a particular person, "Ba" the tribe collectively, "Bu" the tribal territory, and "Lu" the language. Thus we have Bahima, Muhima, Buhima, and Luhima; also Bairu and Mwiru.

Bairu cattle holding is an effective bar. No marriage is valid without progeny price in cattle, and the Bairu can receive no reproductive cows, nor do they have any to give.

4. Bahima men (especially chiefs) can take Bairu girls as concubines, but Bairu men do not have an equivalent privilege with Bahima girls.

5. No Bairu may hold high political office. At best, they may serve as district tax collectors under a Muhima.

6. All Bairu have to work for and pay tribute to the Bahima chieftains, who in turn distribute the garden products and derivatives to their fellows. The Bahima have had no desire to kill the goose that lays the golden eggs. Therefore the individual Muhima is barred from abuse of the Bairu, who is privileged to plead before a Bahima chief for compensation when ill-treated or exploited by an unauthorized Muhima.

7. When a Mwiru killed a Mwiru, that was a matter for retaliatory revenge among themselves. But if a Muhima killed a Mwiru, the law denied the right of direct action to the Bairu kin group. The most they could hope for was to be able to plead with the Bahima king that he obtain compensation on their behalf, and they were lucky if they got anything at all. But if a lowly Mwiru dared to kill a Muhima, the Bahima dispatched him forthwith.

Domination and exploitation in the Banyankole state is direct, unabashed, and efficient. It is an example par excellence of the oft-repeated story of the parasitic mastery of a sedentary people by nomadic herdsmen.

However, the class structure is not the simple dichotomous arrangement we have thus far described. The Banyankole kingdom does not exist in a vacuum, and there are other Bahima kingdoms and tribelets in the area. Although racially self-conscious, the predatory Muhima has not been adverse to raiding alien Bahima. To put a stop to this, the kingdom of Ankole undertook the subjugation of various Bahima neighbors, who were then incorporated into the Banyankole tribal society as a separate tribute-paying class, known as *Abatoro*. These can intermarry with their conquerors and they suffer no serious legal disabilities.

Yet a fourth class is the *Abambari*. Prohibition of intermarriage never prevents miscegenation. Out of the Bahima-Bairu concubine relations come half-caste offspring. Legally the *Abambari* are classed as Bairu, in the same way as most American laws class mulattoes as Negroes. But the personal interest of a Muhima father often mitigates the strict working of this rule. Those who have no legitimate heirs often raise the son of a concubine to the status of heir. Thus the exclusive separatism of the ruling caste has been self-defeated and, ironically enough, to the greatest degree among the chiefly families and lineages. For it is just in this group that today a definitely larger percentage of dark Bantu Negroid physical

types is found than occurs among the ordinary Bahima herdsmen in the more remote rural districts.

Lastly, there were the *Abahuku*, or slaves. Because of the convenience and effectiveness of the system of exploiting the Bairu and the limited economic possibilities in slavery when Bairu tools and gardening methods are used, slavery has never been extensive. The slaves were Bairu taken in raids upon neighboring kingdoms. Ankole Bairu were never enslaved. Slaves were used as menials in the households of the very rich. They neither gardened nor tended the herds. They were chattels of their individual masters, and their ears were cut off to keep them from passing as Bairu if they succeeded in running away.¹⁶

CASTE

Caste is the result of intensification of the class principle. It is the freezing of social classes by means of endogamy and hereditarily ascribed status. It is thus a device by which a dominant group attempts to perpetuate and guarantee unto itself and its descendants a special and favored position in life. In theory, no person can escape his caste, whatever his potentialities and capabilities may be. Kroeber has pointed out that the caste "resembles the clan in being a sub-grouping within the larger political or cultural whole, and in being marriage regulating."¹⁷ However, it differs from the clan in that while clans are exogamous, castes are endogamous. Clans are usually (but not always) of more or less equal social rank whereas castes are implicitly higher or lower in social status. The very existence of caste is a denial of any concept of social equality. The American dilemma rests in the contradiction between our devotion to the Christian ideal of brotherhood and to the democratic ideal of political equality and fraternity among all men and the occurrence of racial castes, which have resulted from our earlier conquests of Negroes and Indians.¹⁸

SLAVERY IN PRIMITIVE SOCIETY

Slaves have entered several times into our discussion of class systems. Slavery is one of the most important of human social institutions and at the same time one that has not been adequately studied by anthropologists. It is by no means a universal institution, but it is very widespread and one that goes deep into human relations.

¹⁶ K. Oberg, "The Kingdom of Ankole in Uganda," in E. E. Evans-Pritchard and M. Fortes (eds.), *African Political Systems*, pp. 121-162.

¹⁷ A. L. Kroeber, "Caste" (*Encyclopedia of the Social Sciences*, Vol. 3, 1930), p. 254.

¹⁸ Thirty of our forty-eight states have laws prohibiting interracial marriages.

Our democratic morality has condemned slavery in such terms that we recoil from it with emotional horror. It is now hard for us to conceive of involuntary servitude as an implicit aspect of any society. Yet slavery has been an important part of civilization far longer than the period in which civilizations have extirpated it from the social body.

Slavery is not in itself an absolute concept. In operation it ranges from the complete degradation of a whole class of people by means of dogmatic denial of their humanity (slaves as chattels) to the inclusion of slaves as adopted members of the master's family and kinship group. Slavery, we are safe in saying, is a condition rarely welcomed by the slaves. There are few social advantages in being a slave and usually a good many disadvantages. The lot of the slave depends to a large degree on whether the tribe customarily utilizes its slaves as household servants or field workers. If the former, the relation of slave to master is unavoidably intimate, and slaves reap the benefit. If slaves are used as field workers, the master's chief interest becomes one of sheer economic exploitation, and, especially where there are great numbers of slaves, relationships become impersonal and harsh.

Slaves are derived both from within and without a society. Internal slavery occurs only in the more advanced primitive societies with quasi-capitalistic practices of borrowing and lending. A borrower may pledge himself or a son or daughter as security on a loan. Default means servitude. Or, as in the case of the West African Ashanti, a man could pawn his brother's son to raise a sum. The boy then worked for the creditor until the loan was repaid; the labor he performed constituted the interest on the loan.

Debt slavery does not produce huge masses of slaves, nor are their positions ordinarily harsh. A second internal source of slaves is the condemnation of criminals to servitude. This, too, is found only in the more highly advanced cultures, since a strongly centralized law system is a necessity.

The great source of slavery is war and the exploitation of war captives. Warfare may or may not be waged to take captives. The lower primitives, for two reasons, rarely enslave war captives: (1) The community is primarily on a kinship basis and there is no room for nonkinsmen in the group; consequently, captives are quickly adopted into the family, with the result that the exploitive advantages of slavery are dissipated. (2) On the level of food gatherers and lower hunters the population usually presses close upon its food resources; extra mouths to feed are a disadvantage, and since slaves do not produce an appreciable surplus over what they consume, they are not desired. It is not that simpler peoples are more humane than more advanced peoples. Hunters are just as active in killing captive enemies as people on any other economic level of development.

Although slavery occurs with greater frequency among higher hunters than lower, it is among advanced agriculturalists and pastoralists that it first came into its own.

In the studies of Hobhouse, Wheeler, and Ginsberg, the relation between the occurrence of slavery as an institution and the level of subsistence culture is indicated in the following chart.¹⁹

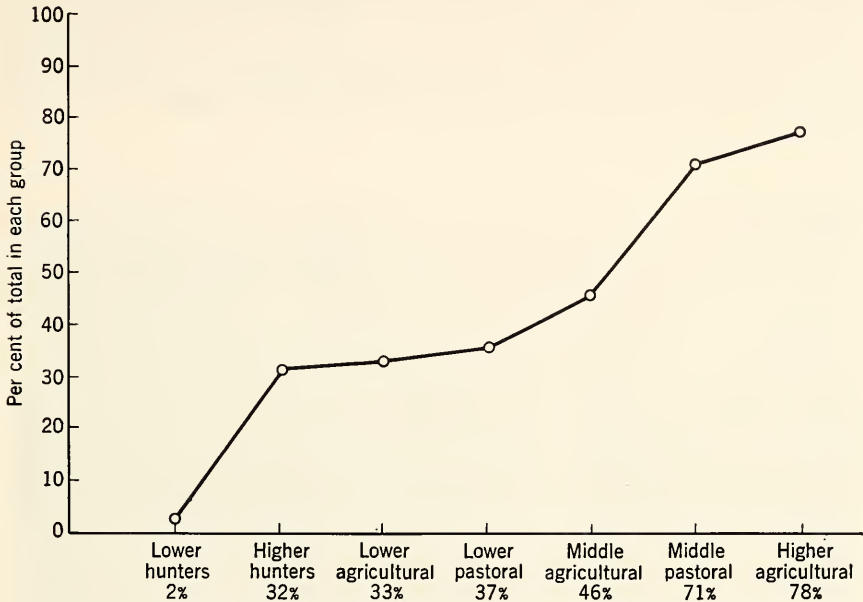


Fig. 24-2. Percentage occurrence of slavery according to subsistence categories.

This rising curve continues right on into civilization, ancient, medieval, and modern. Although the nineteenth century saw extensive abolition of slavery, the mid-part of the twentieth has seen its recrudescence first in the forced labor camps of Russia and then in slave labor exploitation of subjugated peoples by Nazi Germany.

That slavery is shunned by peoples on the same level of economic development as others who incorporate it into their society warns us that the high correlation between the development of technology and slavery is not absolutely positive. In Africa slavery has long been a characteristic part of native life throughout most parts of the continent. Thus, such pastoralists as the Bahima quite readily impose it on the Bairu. But the pastoralists of Siberia, Central Asia, and India do not know the institution, nor do the pastoralists of extreme South Africa.

¹⁹ L. H. Hobhouse, G. C. Wheeler, and M. Ginsberg, *The Material Culture and Social Institutions of the Simpler Peoples*, p. 236.

In North America, as we have observed, the hunters and fishers of the Northwest Coast kept numerous slaves. Yet the gardening Indians of the Southwest, although culturally more advanced, held no true slaves although they did keep a few captive children.

Even more striking is the absence of slavery among the Indians of the Southeast Woodlands, notably the Creeks. In gardening and social organization they were quite sophisticated, yet they had no class of slaves. Their institutional configuration was not conducive to the enslavement of enemies. Wars were fought to give men prestige (just as in the Plains); as in the case of the Pueblo Indians, economic goods did not provide the basis for prestige rating. Finally, kinship sentiments equalized most property usages.

SUMMARY

Our review of the anthropological data indicates that primitive society is neither classless nor class-ridden. Both forms of social organization occur. It is, nevertheless, perfectly clear that the most ancient societies were devoid of social classes, as they were also devoid of clans. Segmentation into classes is in part a function of increasing complexity of culture and differentiation of function and privilege. Subjugation and conquest commonly lead to enslavement or caste-organized states among peoples on the barbaric and archaic civilizational levels of cultural development. But this is not the sole form or origin of state structure, as conquest theorists of social politics have maintained.²⁰ States evolve also from the internal needs of historically homogeneous groups.

SELECTED READINGS

Hutton, J. H.: *Caste in India: Its Nature, Function and Origin*. A general survey.

Kroeber, A. L.: "Caste" (*Encyclopedia of the Social Sciences*, Vol. 3), pp. 254-256.

A brief summary of the phenomenon.

Mishkin, B.: *Rank and Warfare among Plains Indians* (American Ethnological Society, Monograph 3). The basis of class differentiation among some American Indians.

Oberg, K.: "The Kingdom of Ankole in Uganda," in E. E. Evans-Pritchard and M. Fortes (eds.), *African Political Systems*, pp. 121-164. For greater detail on the system described in this chapter.

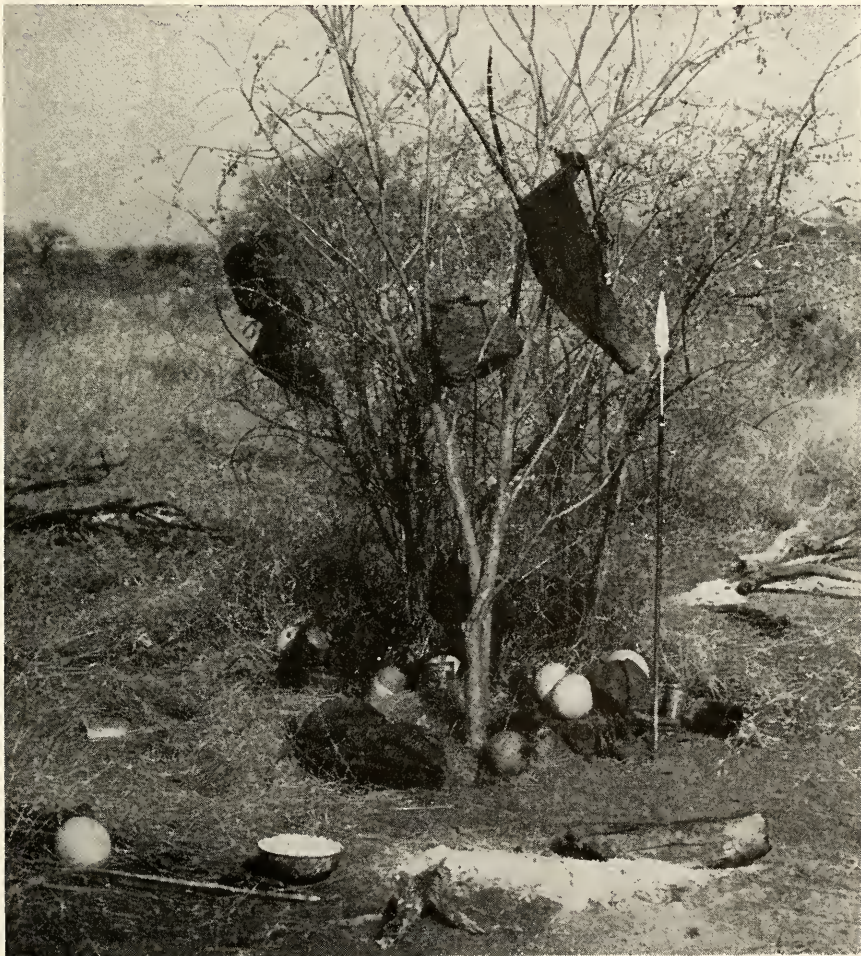
Tumin, M. M.: *Caste in a Peasant Society: A Case Study of the Dynamics of Caste*. The workings of a caste system in a Guatemalan community.

²⁰ Cf. F. Oppenheimer, *The State*, p. 15. "A social institution, forced by a victorious group of men on a defeated group, with the sole purpose of regulating the dominion of the victorious group over the vanquished, and securing itself against revolt from within and attack from abroad."

Part Four

PRIMITIVE CULTURE

E. PROPERTY AND POLITICS



Bushman household goods. Gautscha, South Africa. (*Bushman File, Peabody Museum, Harvard University*)

CHAPTER 25. The Ownership of Goods and Ideas

PROPERTY is a universal feature of human culture. The land upon which the social group is located, from which it draws its sustenance, the beasts that rove upon it wild, the animals that graze upon it tame, the trees and the crops, the houses that men erect, the clothes they wear, the songs they sing, the dances they execute, the charms they incant, these and many more are objects of property. Whatever men rely upon for the maintenance of life, or value, they tend to bring within the scope of property. So it is that property is as ubiquitous as man, a part of the basic fabric of all society.

THE NATURE OF PROPERTY

Property may be held variously—individually (personal property), by groups (joint property), or by the society at large (communal property). It may be fixed and immovable (real estate), or it may be movable. It may be material and concrete, or it may be an idea or a way of acting (incorporeal). It may be transferable by gift, barter, sale, inheritance, or confiscation, or it may be inalienable. It may or it may not be protected by law. Most people by habit think of property only as a thing or things, whereas the thing itself is in fact the least important element in the reality of property. The genuine nature of property is found in its qualities as a social institution. Property in its full sense is a web of social relations with respect to the utilization of some object (material or nonmaterial) in which a person or group is tacitly or explicitly recognized to hold quasi-exclusive and limiting connections to that object.

As an illustration, a stone conveniently shaped for use as an axhead lies unnoticed and unused for untold time on the surface of the ground. It is not property. A wandering tribesman finds it, takes it to his cave, and uses it as a hand ax. This in itself is mere possession. If the social

practices of the possessor's tribe are such that any other person could appropriate this tool at will, it would still be a mere matter of possession. But if the custom is such that his fellow tribesmen, at least, recognize that he has a special *right* to possess that piece of rock and all others have a *duty* to desist from using or taking it, then it is an object of property. The stone has not changed, but the social pattern with respect to it has. It is the special and peculiar set of social relations that have transformed the rock into an object of property. Thus, we have two irreducible aspects of property: (1) the object and (2) the web of social relations that establishes a limiting and defined relationship between persons and the object.

This limiting relationship is often referred to by lawyers and economists as an *exclusive right of use*. It is exclusive in so far as it excludes nonowners from legitimate use without the express or tacit approval of the owner. However, the right is rarely, if ever, so absolutely exclusive that the owner may utilize the object in any way his whim may dictate. His right of use is always limited to some extent by the demands of society. After all, society, not the individual, is the creator of property. This is not to say that society created the *object*. The point of emphasis is that an object does not become property until the members of the society at large agree to bestow the property attribute upon the object by regulating their behavior in a self-limiting manner. This is done because social experience has led to the conclusion that social benefits are derived from granting "exclusive" rights to individuals and groups with respect to certain classes of objects that they have created or acquired. By the same token, men always limit the extent of that exclusiveness in accordance with their conception of the needs of social good. Property—a social creation—is consequently always subject to social limitations, even in the most individualistic societies. Thus it is that as social concepts change from time to time, the specific content of property concepts undergoes alterations. The form and content of property notions are not the expression of immutable instinct nor of any imagined laws of nature. Property in mid-twentieth-century United States is not what it was in the mid-nineteenth century, nor what it will be at the dawn of the twenty-first.

As an example of the way in which property is constituted, we may briefly analyze canoe ownership among the Yuroks of California—a highly individualistic people. A Yurok boat owner nominally possesses his canoe as private property. It is his. He has a series of demand rights against all other persons not to molest or damage his boat. He has the privilege right to use it upon the public waters. He does not have to sell or give it away. These are all marks of exclusive rights. Yet he is also subject to a series of well-recognized duties that limit his exclusive prerogatives. For one thing, he is under a duty to ferry any sojourner over the river when called upon to do so. Failure to perform this duty gives the traveler a de-

mand right for legal damages equal to one dentalium shell. On the other hand, if the owner suffers injury because of the service he has to render, then the traveler is subject to damages. Thus, when one canoeman's house burned down while he was in midstream, his passenger had to pay for the house.

This is what Cook meant when he said "ownership denotes—not only an indefinite number of rights in the strict sense or claims available against an indefinite number of persons, each of whom is under a corresponding duty, but also a large and indefinite number of privileges, powers and immunities."¹

Finally, we should take note in our introductory comments of the relation of property to law. In the modern world it is a fact that a vast proportion of the law of the state is devoted to the definition of the relationships between owners of property. Much of the activity of our courts and police is devoted to maintaining and enforcing these relationships. Government feeds and grows on the complexity of property in a heterogeneous industrial civilization.

But to state, as does one of our best sociologists, that property rights "exist only because government recognizes and protects them"² is an expression of an amazingly myopic point of view. Property rights are tacitly and explicitly recognized and upheld by all forms of social sanction, legal and nonlegal alike. And in the case of primitive society the recognition and support of property institutions is in fact more frequently nonlegal than legal. Even when legal in nature, primitive property law falls predominantly within the area of private law, which operates independently of the formal governmental machinery.

LAND TENURE AMONG FOOD GATHERERS AND HUNTERS

Land is a *sine qua non* of human existence. It is therefore the most important single object of property. All societies are territorially based,³ and most sustenance is drawn from the soil, either directly or indirectly.

Various observers have reported a tendency, presumably instinctive,

¹ W. W. Cook, "Ownership and Possession" (*Encyclopedia of the Social Sciences*, Vol. 11, 1933), p. 521.

² R. M. MacIver, "Government and Property" (*Journal of Political and Legal Sociology*, Vol. 4, 1946), p. 5. See *contra*, A. I. Hallowell, "The Nature and Function of Property as a Social Institution" (*Journal of Legal and Political Sociology*, Vol. 1, 1943), pp. 115-138, especially pp. 130ff. Above all, every student should read the article by W. H. Hamilton and I. Till, "Property" (*Encyclopedia of the Social Sciences*, Vol. 12, 1934), pp. 528-538.

³ One notable, possibly the only, exception to this is found in the case of the *Orang Laut*, the Malayan sea gypsies of the Java and Flores Seas. These tribes are autonomous units, living a roving existence entirely in boats.

for local groups among certain animals to fight to keep outside intruders from their territory. This is especially true of the primates, for whom Hooton has summarized all the available data relative to this subject.

Territoriality, or the residence of a primate group within well-defined territorial limits, has been established for howler monkeys, red spider monkeys, various baboons, gibbons, and, in all probability, orang-utans. The list is restricted by the number of field studies made. It is quite possible that nearly all primate genera share this habit of remaining within a certain area which they regard as their own and from which they attempt to expel trespassers, especially those belonging to their own species. If, as is stated, different species of lemurs in Madagascar are separated by fairly easily traversable natural boundaries, such as narrow rivers, it would appear that this primate tendency to maintain territoriality must be closely bound up with the differentiation of races and varieties, and even of species, by selection and inbreeding. Further, it would seem necessary to postulate some such innate or acquired habit of relative immobility within a narrow environmental range to account for the early differentiation of the very distinct physical varieties or races of man.

Thus it would appear that the feeling of ownership of real estate or of a certain habitat area is a very ancient primate inheritance.⁴

An impressively dramatic representation of primate territoriality may be seen in Carpenter's documentary film, "The Social Life of the Rhesus Monkey." On a small island in the Caribbean Sea, Carpenter imported a large number of rhesus and turned them loose so they could lead natural lives under observation. They quickly formed several "tribes," each of which preempted a section of the island for its own. Periodically, one or another group undertakes to invade the territory of some other. As the film shows, they are met at the border, where vigorous, if haphazard, skirmishing then occurs. In due course, the invaders are repelled and go filing home again.⁵

Most human societies claim property rights in land as communities. The Australians, African Bushmen, the Veddas of Ceylon, and the Tasmanians recognize clearly discernible natural boundaries as marking off local group territories. Each resents uninvited or surreptitious incursions—usually reacting with recourse to war or to regulated expiatory combat (see pages 508–511). Recognition of the possessory communal right as a true communal property right is seen in the Australian practice whereby one band sends an emissary to another to ask permission to collect certain foods on the lands of the second community. It is up to the tribal elders to grant or reject the request.

In addition to the obvious economic reasons for tribal exclusiveness

⁴ E. A. Hooton, *Man's Poor Relations*, pp. 331–332.

⁵ Distributed by The New York University Film Library.

in the use of their land, Australian tribes have a vital mystic relation to the land. The land is tied up with their dead ancestors, and as they cannot migrate from the land because that would break an immutable tie to the ancestors, neither do they wish to have upsetting strangers poking around their sacred territory.

Julian H. Steward, a leading authority on the ecology of the Great Basin area, has categorically stated, "The Shoshoni lacked any form of ownership of land or resources on it (except eagle nests). No group habitually and exclusively utilized any clearly defined territory for hunting, fishing or seed gathering."⁶ Wyeth, who was among the Shoshones 120 years ago, stated the same: "None of the roving tribes claim ownership of the soil."⁷

Steward has given an admirable explanation of the situation in terms of ecological factors. The uncertainty and variability of the pine-nut and wild-seed crops are so great that territories exploited by different groups varied greatly from year to year. When there were good crops in any locality, they ripened so fast and fell to the ground so quickly that the people who ordinarily lived in the area could not possibly gather them all. When a good harvest was promised, they therefore spread the news abroad, so that people whose crops had failed could come to share their bounty with them. "Under such conditions," claims Steward, "ownership of vegetable food resources would have been a disadvantage to everyone."⁸ Nonetheless, the fact is that the Shoshones held a country they called their own—they owned it and shared it among themselves.

An almost identical practice exists in Australia. There certain tribes are dependent upon a fruit known as *bunya-bunya* which, like pine nuts, is uneven in its yield. A territorial group which anticipates a large yield in a given season sends out messengers carrying invitation sticks to other groups, sometimes as far as a hundred miles away. Or they may raise smoke signals. The visitors may under no circumstances hunt in the hosts' territory, but they may harvest to their hearts' content for about a month and a half. One observer counted more than twenty tribes, speaking different languages, amicably gathered at a single *bunya-bunya* harvest.⁹

Among the Eskimos land is not property in any sense. Nor is local group sovereignty applied to territory. Anyone, whatever his local group, may hunt where he pleases; the idea of restricting the pursuit of food is repugnant to all Eskimos (except for some groups in western Alaska, who

⁶ J. H. Steward, *Basin Plateau Aboriginal Socio-political Groups* (Bureau of American Ethnology, Bulletin 120, 1938), p. 254.

⁷ *Ibid.*, p. 255.

⁸ *Ibid.*

⁹ J. Dawson, *Australian Aborigines*, p. 22.

were influenced by the very property-minded Indians of the Northwest Coast).¹⁰

Eskimo interest is in game per se. Land is ignored and not conceptualized as property, in spite of the fact that each local group is identified by the territory in which it lives.

Such exceptions as these indicate that territorial exclusiveness is by no means universal. However, it is perfectly correct to say that the vast majority of food-gathering and hunting tribes do hold their land in common. Any member of the tribe may hunt where he will; as Neighbors once wrote of the Comanches, "No dispute ever arises between the tribes [bands] with regard to their hunting grounds, the whole being held in common."¹¹

On the other hand, a few hunting peoples have developed practices of joint, and even individual, ownership of hunting and fishing areas. Notable among these are the Algonquian tribes of Canada and certain Indians of California and the Northwest Coast. There is a considerable body of analytical material on Algonquian land tenure, beginning with Speck's classic paper, "The Family Hunting Band as the Basis of Algonkian Social Organization,"¹² and summarized and weighed by Cooper in 1939, who writes,

The [Algonquian] band territory is divided up into sections or segments . . . each section being claimed by a particular "family." It appears . . . that the title to the land rests more in the individual than in the family as such, . . . the right to the hunting ground is a permanent and abiding one.¹³

Beavers and muskrats, which are the chief game, are sedentary. Unlike the roving beasts, they stay close to their home sites. Hence, it is possible for individual owners to conserve and protect the supply of such game on their individual tracts. To set traps on another man's property without invitation leads to violent sanctions—bloodshed or sorcery. A hunter who follows the trail of a large fur bearer, such as the fox or bear, into the land of another man may kill the beast, although he usually takes pains to notify the landowner, with whom he usually divides the spoils. Berry picking, fishing, root gathering, and birch-bark collecting are prohibited by some Algonquians but not by others. Among the Têtes de Boule,

¹⁰ But even here Lantis reports that when Eskimos from the mainland came to hunt on Nunivak Island, it never occurred to the Nunivakers to object to, or apparently even resent, the intrusion, although the supply of game was limited. (Oral communication.)

¹¹ R. S. Neighbors, in *History of the Indian Tribes of the United States*, Vol. 2, p. 131.

¹² *American Anthropologist*, Vol. 17, 1915, pp. 289–305.

¹³ J. M. Cooper, "Is the Algonquian Family Hunting Ground System Pre-Columbian?" (*American Anthropologist*, Vol. 41, 1939), pp. 66–90.

studied in the field by Cooper, there is a superfluity of berries, and fish are plentiful. "There is no scarcity, and no need for individual claims on such resources."

The Tungus of Siberia have very similar notions, although hunting areas are owned by families rather than by individuals. A man should not hunt or trap in the territory of another family, although he may follow in wounded game for the kill.

The Kwakiutls of British Columbia partitioned coastal areas of water as private property for fishing purposes. All intruders were driven off.

In a similar vein, the California Yuroks exhibited a partial private proprietary right to ocean areas. Kroeber tells of a Yurok family that "owned" a portion of the sea off the beach extending about four miles in either direction from their house site. Other people could fish there, but they had to surrender the flippers of all sea lions taken within the area.¹⁴

In summary: food gatherers, hunters, and fishers usually hold large land and water areas communistically as common property, excluding from exploitation of their "sovereign possession" all aliens except such friends as those to whom they may extend privileges. Exceptions are found in the instance of the Eskimos, who at the one extreme have no exclusive concepts with respect to land, and the Algonquians and West Coast Indians, who permit individual or family holdings of hunting and fishing grounds.

LAND TENURE AMONG PASTORALISTS

Among pastoral herders there is a notorious "carelessness as to land." The Comanches, for instance, who were horse herders and hunters of game, had no concept of land. "Land was a matter of unconcern for them, being held neither individually, jointly nor communally."¹⁵ Buffalo herds could be found anywhere and pasturage for their horses was unlimited.

Even among people whose grazing resources are limited, the tendency is to treat the pasturage as public domain. Notable exceptions have, nevertheless, been reported for the Tungus reindeer herders of Siberia

¹⁴ A. L. Kroeber, lecture, *Seminar in Psychological Approaches to Culture* (University of California, spring, 1941). An interesting legal case arising from failure to surrender the flippers is analyzed in E. A. Hoebel, "Fundamental Legal Concepts as Applied in the Study of Primitive Law" (*Yale Law Journal*, Vol. 51, 1942), p. 958. A variant of this case is dramatized in Series I, *The Ways of Mankind*, Record 5, "The Sea Lion Flippers: a Study in Ethics."

¹⁵ E. A. Hoebel, *The Political Organization and Law-ways of the Comanche Indians* (American Anthropological Association, Memoir 54: Contributions from the Laboratory of Anthropology, 4, 1940), p. 118.

and the Kazaks (or Kirghiz, as the Russians call them to avoid confusion with the Cossacks) of Central Asia east of the Caspian Sea.

Although the Chukchi and Samoyed, neighbors of the Tungus, do not subdivide their pastures within the tribe, the Tungus treat the pastures as the common property of a group of cooperating and intermarrying clans, from which they exclude other groups and their herds by force, if necessary. In some instances a territory is divided among clans as such. In recent times individual families have utilized customary grazing grounds somewhat exclusively and irrespective of clan ties.¹⁶

Kazak practices are even more distinctive. These excellent horsemen subsist on large flocks of sheep and a few goats and camels. As is so often the case in primitive economy, they vary their life and social organization according to the seasons. It is their custom to summer in the lowlands, where they graze their herds at will in the tribal territory. In April, each household sneaks out of the winter village in an attempt to get to good pasturage before the others. In midsummer, drought so parches the land that constant movement from one grass spot to another is necessary. The families and clans do not lay claims to any piece of the country at this season, for the richness of the herbiage varies greatly from year to year. Winter camps are fixed settlements conveniently located near a well-protected pasturage amid the trees in a deep river valley. Each lineage or family group has its winter grazing sites established with natural boundaries or rock piles and stakes.

LAND TENURE AMONG FOOD GROWERS

Gardening and agriculture set quite different situations from those we have thus far discussed. Since full-fledged gardeners and farmers are more or less intimately bound to the soil, it is hardly surprising that they show greater interest in it.

For the most part, primitive gardeners work their lands either individually, by lineages, or by clans, and occasionally by clubs, but the ultimate title to the land commonly rests in the community. This makes it necessary to draw a clear distinction between proprietary title and usufruct. The last is merely a right-of-use granted by the property owner to someone else. Usufruct may be for a lifetime; it may even extend through a family for generations, but the ultimate control rests in the owner. Sometimes the distinction between usufruct and ownership is very real; at other times it is more ideological than active.

In a number of monarchistic West African tribes a sort of feudal sys-

¹⁶ C. D. Forde, *Habitat, Economy, and Society*, p. 361.

tem prevails. All land "belongs" to the paramount chief. He assigns it to various chiefs, who in turn allocate it to clans, whose headmen assign individual plots to each gardener. In return, the land-working populace owes fealty to the chiefs and above all to the king. They must do public work, pay taxes, and perform military service. As long as they are loyal and faithful in their duties, as long as they are not involved in serious crime, they may not be ousted from their lands. The privilege of use passes down through the family. However, a man may not transfer or sell his plot outside the family without approval of his clan elders. Often the family will pawn or sell a member into slavery in order to avoid alienation of its hold on the land. Since the services that are called for from landholders are general public duties, they are actually services to the king only in theory. The king's ownership of all land is, therefore, largely ideological. The kingship serves as the symbol of community unity, and landed property is phrased in terms to fit the ideal.

In Indonesia, where the rules of land ownership among the primitive rice growers have been carefully studied by numerous Dutch scholars, we find the relationship between communal ownership and individual holding clearly delineated. In the autonomous villages of the independent tribes all land belongs to the village, which is made up of a core of related clansmen. The solidarity of the group is strong and mystically symbolized in the possession of a common temple and sacred relics. The deceased village ancestors are buried in the soil, which contributes to the sacred feeling of intimacy of the group to its land. The land, all of which belongs to the community, is technically called by the Dutch *het Beschikingsgebied* or "area of disposal." Any member of the community may reclaim and cultivate from the unused communal land as much ground as he can handle, provided he first informs and obtains the consent of the headman and makes a ritual sacrifice. Then he alone is entitled to cultivate that land as long as he works it and keeps it clear. He has continuing right of usufruct. Among some Indonesians, however, if he neglects to prepare the field at the start of any season, he may be confronted by someone else who wants to take it up. Then he must set to work or let the field go. Generally, however, if he abandons a field, he retains a right of exclusive usufruct until the jungle has reclaimed it. Then it reverts wholly to the community area of disposal. If he has built dikes, it may be that his hold remains unimpeded until all traces of the dikes have disappeared.

He may borrow goods or money on such lands as he holds by pledging the land as security. But he may never "sell" the land, nor can a creditor ever obtain a complete foreclosure. There is no possibility of alienation. Land belongs forever to the community.

Outsiders may acquire use of land from the community area of disposal by arranging for payments to the local headman. The contract is in theory for one year only and must be renewed annually. The importance of inalienability to survival of native life was recognized by the Dutch in the last century when they forbade the selling of land to non-natives and limited the duration of leaseholds by Europeans and other aliens.

Among the natives of a village the right of usufruct is inheritable within the family line, but if a line dies out the land reverts directly to the area of disposal for redistribution by the headman. An interesting aspect of the close social bond between the community and its land is seen in the event of a secret murder of an outsider on community land. If the murderer cannot be found, the community that owns the land must indemnify the victim's kinsmen! After all, he died on their common property, so it is presumed that he was killed by someone in that group.¹⁷

In the Philippines, the Ifugaos reveal a pattern basically similar to that which has just been generalized for Indonesia at large. The Ifugaos are extreme individualists, however, and have no organized villages. Terraced rice fields belong to families, with usufruct inherited by both males and females as a part of their marriage portions. *Camote* fields are hewn from the public domain in the mountainside forests by man and wife together and are owned by them jointly as long as they are cultivated. Soil depletion in *camote* fields is so rapid, however, that such fields are abandoned after several years. Still, the title remains with the clearers of the fields until the second growth of underbrush has reached the thickness that prevailed before clearing.

Abandoned rice fields may be taken up without permission by a person other than the owner for a period equal to the exact number of years they have lain unused. After that the title of the original owner becomes active once again. This certainly seems to be a sensible safeguard against withdrawal of needed land from production by overlanded gentry.¹⁸ How different from the depression condition in California where squatting "Okies" were ejected from large idle holdings and their pitiful gardens destroyed!

The sound regulation that lands recently acquired from the public domain must be worked to retain title is a general and basic rule among primitive gardeners the world over. It effectively guards against one of man's besetting social evils—land hoarding by a wealthy few and the closing of the doors of opportunity to the land-hungry.

¹⁷ B. ter Haar, *Adat Law in Indonesia*, p. 88.

¹⁸ R. F. Barton, "Ifugao Law" (*University of California Publications in American Ethnology and Archaeology*, Vol. 15, 1919), pp. 40-44.

How fundamental the African and Indonesian land-use principles are in the primitive gardening complex can be seen from Titiev's comment on the Hopi Pueblo of Oraibi in Arizona:

The Village chief is the theoretical owner of all his town's lands; these lands are divided among the clans residing in his pueblo; and each individual farms a specified portion of his clan's holdings. In addition, there is a large piece of unassigned land, part of which may be used by any villager with his chief's consent. Under such a system land is never bartered or sold, and only rarely exchanged. Ownership is restricted to the privilege of use, but this right is so carefully recognized that if a man decides to allow some of his fields to lie fallow, no other farmer may use them without the specific permission of the owner.¹⁹

Grazing land for sheep, goats, cattle, and horses is communally shared.

In summary: primitive gardeners assign the right of usufruct to individuals or families. In some instances, title is vested in the clan, but usually ultimate ownership is vested in the community. In parts of Africa this communism is transformed into a type of feudal monarchy, where the king symbolizes community entity. Unused land is public domain from which enterprising individuals may carve their plots, with or without official approval, depending on tribal practice.

On the whole, primitive peoples overwhelmingly treat their land resources as a communal asset. In this sense, they are preponderantly communistic. Pastoralists are, for the most part, land communists, because the necessity to rove makes individual ownership impractical. In the case of the hunters and gatherers, there is also little impulse to private ownership of land, since so far as the hunters are concerned most animals are free-ranging and it is more advantageous to rove at will when on the chase. When the habits of prized animals make it feasible, such primitives as the Algonquians and Northwest Coast Indians are quite ready to abandon land communism for vested rights. The primeval savage is not by nature a communist. But he responds to ecological and economic determinism.

Theories of social evolution that assume "primitive communism" as the first mile on man's rough road thus have some foundation, as far as use of the basic land resources goes.

People among us who take the institutions of private property for granted are prone to point to the widespread communism of primitive man as proof of the "advanced" quality of private-property institutions. Communism, they hold, is representative of a primitive state, and the spread of modern communism is a reversion to a condition of savagery.

¹⁹ M. Titiev, "Old Oraibi" (*Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University*, Vol. 22, No. 1, 1944), p. 181.

With equal lack of balance many Communists see the land communism of the primitives as proof that communism is the "natural" and, therefore, the proper and manifest condition for human society.

The anthropologist notes that the real-estate practices of primitives are not properly to be conceived as a justification for any particular economic forms in modern civilization. They demonstrate merely that men can adjust their social institutions to the special needs of their subsistence technologies and natural resources and often will do so.

GAME FOOD

Food is undoubtedly one of the most basic property interests of omnivorous man. Land may seem important, but that is largely because it is the chief original source of the food supply. We have already seen that some foodstuffs are in some societies free goods, as is the air we breathe. But elsewhere and oftentimes access to food is limited; the ethics of food use fluctuate. The sense of mutual aid and a realization of the inescapable interdependence of man to man struggle eternally with the self-assertive urges of bare-bones survival (when resources give but slim pickings) and selfish gratification of desires. Selfishness corrupts altruistic ideals; mutual aid tempers the harshest self-interest.

Property rights in food are the formal crystallization of each society's struggle to regulate the distribution and use of this basic essential.

Wild plants and animals on communal lands are communal property. But the slaying of game and the collection of plant stuffs alter the economic condition of these goods, subjecting them to altered property statuses. So it is that while the general principle of collective ownership of free-running game and unharvested plants holds good, we find that in most instances the expenditure of work in reducing the game and plants into consumable food stocks converts them into private property. All peoples recognize private ownership of food. Yet inasmuch as private ownership never entails absolute exclusiveness and since among hunters and gatherers the food is derived directly from communally owned resources, the communal claim upon privately owned foodstuffs is insistent.

Among the Comanches anyone coming upon a hunter who had just made a kill could claim the choicest quarter of the animal merely by placing his hand upon it. If four different people happened on the unfortunate hunter, they took everything except the hide. This, custom decreed, he could retain by hanging onto the tail of the beast. Far to the north Boas recorded as typical for the Baffin Land Eskimos, "Who first strikes a walrus receives the tusks and one of the forequarters; the next

man, the neck and head; the following, the belly; and each of the next two, one of the hindquarters.”²⁰

Again, in the practice of the Comanches, any hunter returning to the camp with game was obliged to come in openly and to share his spoils with all who came to his lodge for a share in it. “If a man won’t give it away, they camp on him until he does.” To frustrate this social lien on the products of their individual efforts some families camped alone during hard times.

After the communal antelope hunts of the Plains Indians, the meat was equally divided among all participating families, for the whole project was a gigantic cooperative undertaking. In communal bison hunts, after the acquisition of horses, all Plains tribes allowed each man whose marked arrow had killed a bison to keep the meat. But even so, the old and infirm who could not hunt and the wives of luckless hunters received their shares from those who had, and it was the usual thing to teach a boy to give away all of his first kill of any large game animal.

Sharing of food, even though privately owned, is the basic virtue of almost all American Indian tribes and of most of the primitive hunters of the world. To be generous with food, that is the ideal. But as Lowie has pointed out, etiquette which demands that all comers be fed from a man’s private larder is something quite different from actual communal ownership of a common hoard by all the members of the group.²¹ The psychological and social response to private beneficence results in a different order of social prestige ranking than is produced by common ownership.

Outright pooling of food occurs less commonly among the hunting and collecting peoples than it does among the gardeners. In the South Pacific it is associated with prestige competition between local groups and tribes. Great quantities of produce are offered to the chief to be used in feasting rival tribes. The chief’s storehouses among the Maori, for example, were the people’s storehouses, for the people identified his needs as their needs. They were regularly fed from the great storehouses, but above all their great concern was that the chief should be able to entertain visitors munificently. Should he fail in this, their outraged pride made them ashamed before the world. Eating was to the Maori the supreme pleasure, and only by the joint efforts of all could it reach the great heights they so cherished.

Communal pooling of certain foods is also characteristic of our Pueblo Indians. Annual rabbit hunts are held every fall. All men must participate as a religious duty. The dried rabbits are offered to the head priest-

²⁰ F. Boas, *The Eskimo of Baffinland and Hudson Bay* (American Museum of Natural History, Bulletin No. 15, 1907), p. 116.

²¹ R. H. Lowie, *Primitive Society*, p. 207.

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chief of the pueblo, who stores them in his house to be used in ceremonial meals and to be doled out by him to the poor and hungry families of his pueblo in time of need.

At the opposite extreme, certain Algonquian hunters of North America, such as the Ojibwa, demonstrate the ideological lengths to which rugged individualism in food procured from wild game can go. Says Landes,

The game and fish that a man catches in the winter are his private property. When he returns with them to his lodge . . . he decides what to do with them. . . . When he gives game to his wife, . . . he has lost all claim to it. It is never said that he gives game to his wife for her use in making food and clothing for the family; but they phrase it that a man gives game to his wife and therefore the game belongs to her to do with as she pleases. . . . The wife now employs "her" property in the manufacture of food and clothing. She gives the finished product to her husband, immature children, and herself. When these gifts have been given, they become the property of the recipient.²²

The Ojibwa are committed to individualism as an ideal. The fact that they operate an objectively cooperative economy does not daunt them in the least. For their purposes, they are what they think they are, although an anthropologist can tell them otherwise.

Among many hunting tribes, animals that have a fixed abode such as a hibernating bear, a bee, or the eagle are often seized upon as objects of private ownership, even where all other claims to animals are communal. The Nama Hottentot places a few broken twigs before a wild beehive, and a Sia Indian publicly announces the location of bee trees that he has discovered—not to invite others to find the way to the delicacy, but to warn them off. Eagle nests are privately owned among all the Pueblo Indians, so that eagles born in the nest belong to the owner of it. A Pueblo hunter who finds a bear's den marks it, and the bear is his to take in the spring.

Similarly, wild fruit trees in Indonesia and among many peoples of the South Pacific may be blazed or otherwise marked by an individual so that he alone may harvest the tree's yield. In the Melanesian area the tree is guarded by a magic charm that brings foul diseases to any violator of the property right of the owner. Ownership of such trees is usually divorced from the land upon which the tree stands. In some places it is even possible to own a tree that stands on another man's land.

LIVESTOCK

The word *chattel*, which means any object of personal ownership, is derived from the Old French *chatel*. The modern Anglo-American word

²² R. Landes, "The Ojibwa of Canada," in M. Mead (ed.), *Cooperation and Competition among Primitive Peoples*, pp. 90–91.

cattle has the same origin. *Chatel* has its ultimate etymology in the Latin *caput*, or head. *Chatel* in ancient France referred to property of greatest value, head property. Cattle were so much the chief form of property among our pastoral ancestors that our specialized word for personal property grew from the same root.

This small fragment of word history formulates the universal principle of stock ownership among all primitive peoples. Cattle are chattels. Livestock is privately owned. The one great known exception was that remarkable progenitor of totalitarian socialism, the Inca Empire. Private citizens in Incaland could own up to ten llamas, but the vast majority of the beasts were state property. The wool collected from the state herds was stored in government warehouses, to be distributed annually in equal allotments to each family head.²³

Grazing land among migratory primitive pastoralists does not economically lend itself to subdivision. Hence, as has been noted, it is usually communally held and used. But livestock comes in individual units to which individuals may readily attach themselves. Undoubtedly, there is a deep emotional impulse underlying this tendency. Domestication begins in a symbiotic relationship between man and animal that is fundamentally personal. It is most clearly seen in the affectionate relation between man and his dog, the first of the domesticated beasts. It runs through all herders in greater or lesser degree. Nuer men, when they have nothing more pressing to do, spend hours in sensuous contemplation of their cattle.²⁴

"Some men," said Post Oak Jim of the Comanche herders of eighty-five years ago, "loved their horses more than their wives." Favorite horses among most Plains Indians were treated almost as members of the family. Among the Solomon Islanders and many other Melanesians, pigs are the chief objects of value. Most men in the Solomons cannot bring themselves to slaughter their own beloved pigs, so they manage to get meat for their great pork banquets in an exchange of pigs for pigs, or pigs for shell money for pigs.

In the history of mankind the domestication of animals has undoubtedly been a great stimulus to the development of private-property institutions.

GARDEN PRODUCE

Ownership of foodstuffs produced by gardening tends generally to be vested in individuals or family households, but the lines are not drawn

²³ J. H. Rowe, "Inca Culture at the Time of the Spanish Conquest," in *Handbook of South American Indians*, Vol. 2, pp. 219, 267.

²⁴ E. E. Evans-Pritchard, *The Nuer*.



Fig. 25-1. Solomon Island pig fed from a leaf tray. (Douglas L. Oliver.)

with universal consistency. Since most garden plots are worked under private usufruct or outright ownership and most of the expended effort is individual effort, harvests are commonly individually owned. Polynesian practices in contravention of this usage have already been noted, however. Among the Keres-speaking Pueblos, just as rabbit hunts are communal duties, so are the planting and cultivating of the cacique's garden. The harvest is stored in the cacique's house for communal use.

Susu practices in Melanesia require that a man raise his crops on his sister's behalf. Since his sister's household is not his own household, he must in effect transfer the yams from his garden to the storehouses of his sister's husband. His storehouses in turn are filled in part by his wife's brother. What a man produces does not necessarily remain his own property.

ARTIFACTS

Weapons and implements for individual use are ordinarily owned either by their creator or by their user. According to the *principle of individual effort*, proprietary ownership of movables is usually vested in the person who has wrought the object through the expenditure of individual effort. Primitive women ordinarily own the pottery they have

modeled. A man owns the spear or ax he has shaped himself. There is to some extent a psychological identity between the artisan and his creation, as though it were an "extension of his personality." Most of mankind has recognized this identity and respected it by establishing protective devices in the form of personal-property institutions. Recognition of this aspect of property does not entail forgetfulness that social limitations on the rights of the individual owner are always present.

The personal attribute attached to property is an incorporeal element that is almost a property feature in itself.

INCORPOREAL PROPERTY

It no longer surprises us that nonmaterial things of value are objects of property in primitive society. It never would have surprised us at all if it had not been that our grandfather's generation and its predecessors were so smugly comfortable in their self-assurance that savages were of childlike mentality and that Europeans alone were capable of mental abstraction. Even to this day many legal historians cling pathetically to this absurd bolster to our egos in spite of conclusive evidence put forth by anthropologists.²⁵

Thus, consider the case of a Plains Indian visionary who has fasted and sought supernatural power. A bear has appeared to him in a dream; it spoke to him and taught him four new songs. It also instructed him in the preparation of a rawhide shield to be painted with a bear symbol and other devices. The bear in the vision also instructed his tutelary that a shield made in accordance with the instructions would provide immunity in battle if the four songs were sung before an engagement began. The visionary has made a shield as instructed; he has sung the songs; his comrades have heard the words; and he has deliberately exposed himself to the missiles of the enemy, coming through unscathed. The value of the shield and the songs has been publicly demonstrated. The shield, as Lowie has made clear, is a material object that is clearly personal property. But the shield as such, in the culture of the Plains Indians, is of little value. What is of value in conjunction with the shield are the songs and the mystic power that the two engender together. The incorporeal property is the thing of worth. The complex of shield, song, and power may be transferred as a gift to son, nephew, brother, or friend (in at least one Comanche case which the author has recorded, the transfer had to be followed by a vision on the part of the recipient before the mystic power would become operative, however, and this may frequently be the

²⁵ Cf. R. H. Lowie, "Incorporeal Property in Primitive Society" (*Yale Law Journal*, Vol. 38, 1928), p. 551; also *Primitive Society*, pp. 235-243; also E. A. Hoebel, "Fundamental Legal Concepts as Applied in the Study of Primitive Law" (*Yale Law Journal*, Vol. 51, 1942), pp. 963-965.

case among other tribes). Or this same complex may be sold in a commercial transaction that has the qualities of contractual sale. In either case, the recipient may use the complex if he has properly acquired the rights through regularized transfer, but not otherwise. The consequence of unauthorized use of the shield and songs is that the usurper will most certainly be killed by enemy missiles, because of the punitive action of the supernatural power. But there is no reason to believe that the true owner may not recover the shield if it is stolen, and with it his enjoyment of the songs.

Certainly we have here a sufficiently large aggregate of rights denoted by ownership so that we may properly speak of them as incorporeal property. Thus, we find again and again that magic rites and charms, songs, dances, and names are the property of persons and groups of persons. Myths and legends may belong to lineages, as among the Indians of the Northwest Coast. These are objects of property in exactly the same sense as are our copyrights, patents, and "good will." After all, if a people is capable of creating intangible patterns for behavior, such as magic and songs, it is not a great step into the abstruse to attach protective social rules to these abstractions when and if they become objects of value.

SUMMARY

The essential nature of property is to be found in social relations rather than in any inherent attributes of the thing or object that we call *property*. Property, in other words, is not a thing, but a network of social relations that governs the conduct of people with respect to the use and disposition of things. Each member of a society has a status in relation to the property object. The status in turn has an associated role, or customary ways of behaving, that determines each person's rights to use the object, on the one hand, or that forbids or limits his use of the object, on the other. If any object can be used by anybody or everybody, it is not "property" but a free good. If it is thought by the members of a society to be equally accessible (even though only in theory) to all the members of that society, then we have *communal property*. If the statuses of the members of a group, such as a family, lineage, or association, are predominantly similar in relation to the use of an object, then we have *joint property*. If the status of an individual in relation to the object is such that he alone has predominant priority in its use and disposition, then we are confronted with *private property*. Property relations, however, are so complex that such labels must be used with great restraint, for any given manifestation of property may be compounded of qualities of all three orders. Property can properly be analyzed only in terms of the detailed norms of behavior that exist in each culture.

Such analysis does, however, show that certain kinds of objects have a tendency to become communal, joint, or private property, according to the nature of the subsistence culture.

Land is the most basic form of property. Among most primitives the ultimate title to land is vested in the tribe, although a few hunters, like the Eskimos, have no concept of land as property. Pastoral people, in particular, tend not to bother to establish property claims in land, although they have highly refined individual or lineage property rights in their herds. Gardening tribes vest the right of usufruct in family lines, which in turn assign the land to individuals; or else village headmen assign plots periodically, acting on behalf of the tribal chief who symbolically is the owner for all the tribe.

Food is usually private property, but its use and distribution may often be subject to complex customs that express a social claim which requires a sharing of food, either through exchange, tribute to a chief, or hospitality. Tools, weapons, clothing, and ornaments are generally private property.

Primitive peoples are, in general terms, neither more nor less communistic than civilized peoples in ownership of property—except that land is more consistently held in common and landlordship is rare.

SELECTED READINGS

- Hallowell, A. I.: "The Nature and Function of Property as a Social Institution" (*Journal of Political and Legal Philosophy*, Vol. 1, 1943), pp. 115-138. The most thorough anthropological treatment of the subject.
- Herskovits, M. J.: *Economic Anthropology*, Part IV, entitled "Property." An extensive treatment of the subject.
- ter Haar, B.: *Adat Law in Indonesia*, Chaps. 2 and 10, entitled "Land Rights" and "Inheritance." Provides a comprehensive survey for the many tribes of this area of Southeast Asia.
- Thurnwald, R.: *Economics in Primitive Communities*, Chap. 10, entitled "Ownership and Property." A very brief statement of general principles.

CHAPTER 26. Gifts, Trade, and Inheritance

GIFT giving is a human activity of fundamental and universal social significance. It functions as a concrete symbolic representation of mutual interdependence among the members of a society, enhancing social solidarity and effecting a redistribution of economic goods.

The fundamental key to gift giving is the reciprocity underlying all social relations.

Normally a gift is an outright transfer that alienates the donor's proprietary title. Anglo-American law requires that the donor must part not only with the possession but also with the dominion. It holds that a perfect gift is irrevocable. Among primitive peoples, however, there are circumstances in which the gift may be conditional. Thus in Africa progeny price is conditional upon the production of offspring. Barrenness may require the return of the marriage gift to the husband's family. The distinction between gift, purchase, and exchange is often hard to define.

A pure gift should be a gratuity offered as a free enrichment of the recipient without desire for reciprocity. Only anonymous giving meets this ideal qualification, however. Motives for gift giving are many, and in all instances the donor receives some sort of return, be it no more than the self-gratification of his ego known to himself alone.

GIFT EXCHANGES IN PRIMITIVE SOCIETY

On the lowest level of culture the Andaman Islanders nicely exemplify primitive behavior in gift exchange. Movables are all privately owned by these people, yet no one may long possess a particular article.

When two friends meet who have not seen each other for some time, one of the first things they do is to exchange presents with one another. Even in the ordinary everyday life of the village there is a constant giving and receiving.

ing of presents. A younger man or woman may give some article to an older one without expecting or receiving any return, but between equals a person who gives a present always expects that he will receive something of equal value in exchange. At the meetings that take place between neighboring local groups the exchange of presents is of great importance.

Almost every object that the Andamanese possess is thus constantly changing hands.¹

Among our Plains Indians generosity was one of the highest virtues; accumulation of property was socially limited. Gifts of horses were constantly being made. Whenever a guest admired an object, his host forthwith made a gift of it. Sooner or later, a return gift was expected, but it did not have to be of equivalent worth. Chiefs above all other people were obligated to give, for this is one way of attracting and holding followers (as our own politicians well know). Cheyenne Indians today are reluctant to become chiefs in the old way now that they have become "Americanized." They do not want to have to give away their property. Political leaders among all people are in fact subject to the demands of compulsive giving. Marquesas Island chieftains, according to Linton, used the sexual favors of their wives as a form of gift to attract and hold their henchmen.²

Among many primitives, gift giving that builds into gift exchange marks every important crisis period in the individual life cycle or any other change of personal status. Birth, puberty, marriage, death, and entrance into a club or assumption of an office are called to public attention by the bestowal of gifts. The famous potlatches of the Northwest Coast with all their lavish expenditure of gifts center around such occasions. Contractual arrangements such as marriage call for immediate two-way exchanges, often extending over months.

Gift exchange of economic significance may border on trade. Yet it may be merely symbolic in nature when the rule of equivalence is strong. The person who views our ceremonial gift exchanges on the occasion of the Christmas festival only in terms of the usability of the gifts measured against cost and effort naturally thinks the whole business is silly. But he, poor soul, misses the point. Quite true, we all end up with a number of things we neither need nor want. Quite true, it would be more rational to offer gift certificates or even money to one's friends or family so they could then buy what they want and need. But how flat are such gifts! Their donors confuse the sociology of gift giving with utility. They forget that the gifts are symbolic of a social bond between giver and receiver. They represent a state of social relations and a set of emotions, not business.

¹ A. R. Radcliffe-Brown, *The Andaman Islanders*, pp. 42-43.

² R. Linton, in A. Kardiner, *The Individual and His Society*, pp. 152ff.

TRADE

The essential difference between trade and gift exchange is in their relative functions. In trade the emphasis is on economic redistribution. In gift exchange the emphasis is on social relationships. Trade rests on and fosters social interaction, but its main concern is with the distribution of goods. Gift exchange distributes goods, but its main concern is with personal relations.

Within small tribes there is little trade. Gift exchange suffices for the most part. The level of culture is also a factor of some influence. Simple cultures with little specialization of labor do not call forth much intra-tribal trade. It is primarily the high cultures with large populations that are capable of considerable specialization of effort among their members. Services and products are then available for exchange and trade.

However, virtually all societies, large and small, engage in intertribal or international trade. Every society has its unique goods or possesses natural resources from which to supply materials not available elsewhere. Salt-water shells find their way hundreds of miles inland in New Guinea and North America. In the Bronze Age, copper from Cyprus followed trade routes over all Europe. Beeswax flint from Grand-Pressigny, France, found wide use over all western Europe in Neolithic times. Melanesian inlanders trade vegetables for fish with the coastal dwellers.

Specialization based on custom rather than limitation of resources induces a good deal of trade. In New Mexico, Sia Indian women make excellent pottery. The pueblo of Jemez, less than ten miles distant, made none for many centuries, although the same clays are available to both. Jemez exchanged corn for Sia pots in the old days. Hopis trade maize with the nearby Havasupai for buckskins and paint, and maize for wood and wool with the surrounding Navaho (Fig. 26-1). But within the Hopi tribe only the women of the pueblos on Second Mesa make coiled baskets; those who live on Third Mesa make them of wicker; painted pottery is produced only on First Mesa.

The Crow Indians of the Plains were capable of growing tobacco. Indeed, they had a ceremonial organization, the Tobacco Society, whose interest centered around the growing of tobacco as a sacred ritual. Nevertheless, the nicotine plant was not grown for use, and common tobacco had to be obtained by trade with others tribes.³

In western Melanesia the Southern Massim own large seagoing canoes, which they could manufacture themselves but do not. Instead, they obtain them in trade from the tribes of the Northern Massim district.

Within the small group of Trobriand Islands local specialization is very marked. Two towns alone produce the red shell disks so valued in

³ R. H. Lowie, *The Crow Indians*, pp. 274ff.

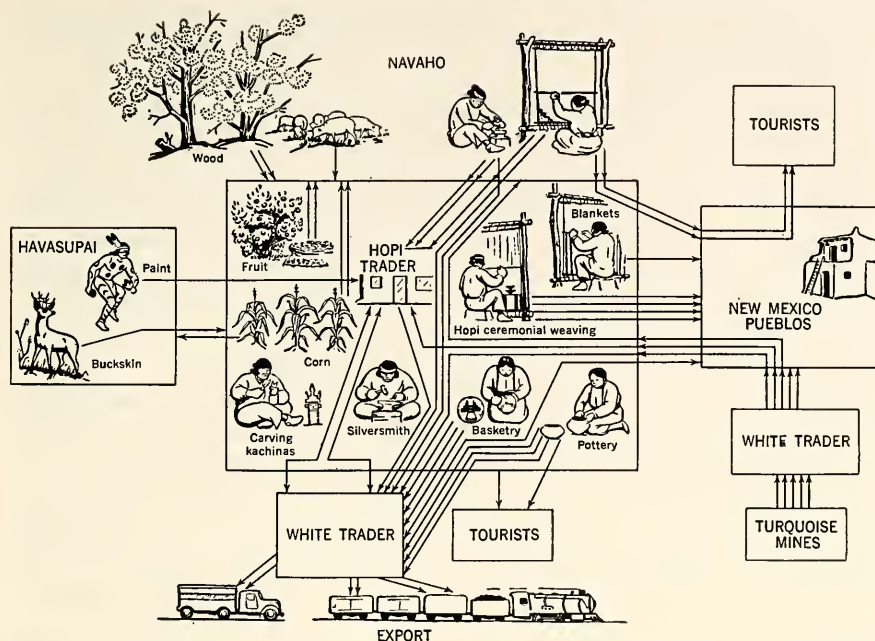


Fig. 26-1. Trade relations of the Hopi Indians. (From L. Thompson and A. Joseph, *The Hopi Way*, p. 23.)

the *kula* exchange (see below). The people of the island of Kayleula make canoes and trade with the inhabitants of the western D'Entrecasteaux Islands for betel nuts, sago, pottery, and turtle shell.

To the east of the Trobriands the natives of Woodlark Island produce homogeneous greenstone for tools and the best carved ebony of the area; both of these products are valued objects of trade.⁴

Dumb Barter. It shocks many people to discover that businessmen carry on trade with enemy nations. A high command will deliberately spare certain enemy plants, because by means of trade through neutrals it is possible to secure products of those plants. Enemies not infrequently find it advantageous to let economic interests override their antagonisms.

This is the basis of the dumb barter, or silent trade, among certain primitives. The pygmy Semang of Malaya, for example, exchange forest products for goods offered by their enemies, the Sakai. Neither group sees the other party during the transaction. The Semang place their goods in a customary place and retire. When the Sakai find the offering, they appropriate the stuff and replace it with whatever they wish to exchange. Later the little Semangs come back to pick up the goods before retiring to their jungle fastness. In like manner, the Mountain Vedda of Ceylon

⁴ B. Malinowski, *Argonauts of the Western Pacific*, Chap. 1.

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trade game for iron arrowheads with the Singhalese smiths. They lay their game in front of the smiths' huts at night, to return the next night to gather the returns.

Herodotus describes how Carthaginian merchants carried on dumb barter with the natives of the northwest coast of Africa. The Carthaginians placed their goods on shore and retired to their ships, sending up a smoke signal. The natives came and replaced the goods with gold. Then they withdrew, while the Carthaginians came ashore. If satisfied, the Carthaginians reembarked and sailed away. If not, they returned to their ships and awaited more gold. They got what they deemed necessary, for the natives knew that if the mariners were shortchanged they would not return again.⁵ Dumb barter still occurs in parts of Africa.

Markets. Open trade is naturally much more convenient, and primitive peoples often develop elaborate machinery for this purpose. In Nigeria huge market towns of great antiquity are in existence. Native artisans bring their brasswork, pottery, mats, baskets, leatherwork, and food-stuffs many miles to these trading centers. The Kede tribe of northern Nigeria act as river transporters of trade goods, for the Kede are the consummate canoemen of the Niger. They carry kola nuts and palm oil

⁵ W. D. Hambly, "Source Book for African Anthropology" (*Field Museum of Natural History, Anthropological Series*, Vol. 26, Part 2), p. 650.



Fig. 26-2. A primitive public market. Alur, Belgian Congo. (*Belgian Government Information Service.*)

north from Nigeria, bringing back gowns, mats, fish, rice, horses, and potash from the Hausa and Nuse tribes.⁶

In Africa the market place is often under the magical protection of some great native chief, whose supernatural authority evokes the "peace of the market" so that enemy tribes may trade in safety.

The Kula. Without doubt the most elaborate and exciting system of trade yet noted for the primitive world is the *kula* of northwestern Melanesia. Malinowski's thorough description of the *kula* will stand as a classic of anthropological economics for many years to come. The *kula* enterprise is a vast complex of trade, magic, ceremonial exchange, overseas travel, and pleasure seeking that involves the enterprisers of tribes many miles apart. The framework through which the whole organization is expressed is the exchange of white shell arm bands, called *mwali* (Trobriand), and long necklaces of red shell, called *soulava*. Exchange is intertribal and interisland. *Soulava* are always traded in a clockwise direction. *Mwali* go counterclockwise (Fig. 26-3). There is no exception to this rule.

⁶ S. F. Nadel, "The Kede," in E. E. Evans-Pritchard and M. Fortes (eds.), *African Political Systems*, p. 169.

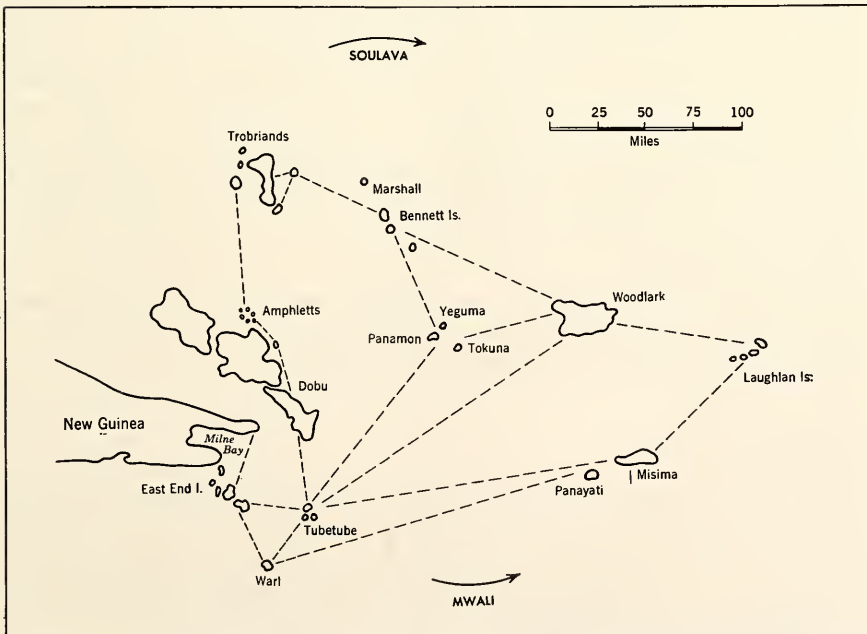


Fig. 26-3. The *kula* ring. Lines show overseas trade routes. Arrows indicate directions followed by necklaces (*soulava*) and arm bands (*mwali*). (After Malinowski.)

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Each of these articles meets on its way articles of the other class, and is constantly being exchanged for them. Every movement of the Kula articles, every detail of the transactions is fixed and regulated by a set of traditional rules and conventions, and some acts of the Kula are accompanied by an elaborate magical ritual and public ceremonies.

On every island and in every village, a more or less limited number of men take part in the Kula—that is to say, receive the goods, hold them for a short time, and then pass them on. . . . Thus no man ever keeps any of the articles for any length of time in his possession. One transaction does not finish the Kula relationship, the rule being “once in the Kula, always in the Kula,” and a partnership between two men is a permanent and lifelong affair. . . .

The ceremonial exchange of the two articles is the main, the fundamental aspect of the Kula. But associated with it, and done under its cover, we find a great number of secondary activities and features. Thus side by side with the ritual exchange of arm-shells and necklaces, the natives carry on ordinary trade, bartering from one island to another a great number of utilities, often impracticable in the district to which they are imported, and indispensable there.⁷

Not all trade among primitives is by means of direct barter. Various media of exchange are known in several parts of the world. Shells serve most commonly as a species of money: cowrie shells in the Pacific area and in Africa; dentalium shells among the Indians of California. Wampum beads were used in exchange among our eastern Indians, and the early Dutch in New York treated them as good cash. Importation of poor counterfeits caused the city council of New Amsterdam in 1650 to pass an ordinance pegging the exchange value of good beads at six white and three black per *stiver*. Poor wampum was pegged at eight and four. Polished stone axheads and bronze celts were extensively used in late prehistoric times in Europe. Livestock—pigs in the Solomon Islands, cattle in East Africa—are used in such a way that they may properly be called media of exchange.

Iron hoes serve as a medium of exchange in parts of Africa, but the strangest of all primitive moneys are the huge limestone wheels of the Island of Yap in Micronesia (Figs. 26-4 and 28-3).

INHERITANCE

Inheritance, in the words of G. D. H. Cole, “is the entrance of living persons into the possession of dead persons’ property.”⁸ That is one way of putting it. This, however, leaves much unsaid. In the preceding chapter, property was identified as consisting of (1) an object (material or in-

⁷ Malinowski, *op. cit.*, pp. 82-83.

⁸ G. D. H. Cole, “Inheritance” (*Encyclopedia of the Social Sciences*, Vol. 20, 1935), p. 286.



Fig. 26-4. Micronesian stone money. Yap. (Peabody Museum, Harvard University.)

corporeal), and (2) a web of social relations that establishes a limiting and defined relationship between persons and that object. This web of relationships consists of the roles or patterns of behavior that are associated with certain statuses which are in turn related to the object of property. Ownership, therefore, is a complex of statuses and roles that allow certain persons the socially recognized privilege-right to limited control of the use or disposition of objects. These rights of control, though limited, establish active and positive relations to the object for the owners. Non-owners are under a duty to refrain from use of the object, or they are at least subject to much more restrictive access to use of the object. In other words, in the property relationship the status and roles of A with respect to the object are distinct and special as against X, Y, or Z.

Analyzed in terms of culture theory, inheritance is not transfer of possession. It is to be seen as transference of statuses. And although much inheritance involves transfer after death, many statuses may be transferred *inter vivos*, during life. Nyakyusa sons of chiefs "inherit the country," i.e., they assume the chieftainship while their fathers still live. Ifugao children inherit the parental rice fields on marriage. But obviously not all transfers of status are what we recognize as inheritance. Cheyenne peace chiefs on the Council of Forty-four were replaced every ten years by selection, not inheritance. The presidency of the United States involves a transfer of status every time we change administration, but the office is noninheritable.

Inheritance, therefore, means a transference of status based upon a pre-existing relationship between the predecessor and successor. The relationship is personal and, usually, traditional.

Professor Radcliffe-Brown, in his survey of patrilineal and matrilineal succession in primitive societies, came very close to realization of this when he concluded, "In general, though there are a few exceptions, transmission of property follows the same line as transmission of status."⁹ The reason is that transmission of property is transmission of status. It follows that if most kinds of status are transmitted down one line or another, property statuses will follow along the same line. Therefore, a close correlation of type of social organization and devolution of property will naturally occur.

Testamentary Disposition. In instances in which an individual wishes to transfer his property status to another person who is not specifically defined as an heir in custom or law, *testamentary disposition* may be allowed for. This is what we know as "making a will." The power of testamentary disposition probably exists in most primitive societies, although this is a matter that has not been subjected to systematic investigation. In those societies in which it does exist, it does not apply evenly to all forms of property. The disposition of garden plots, for example, is usually subject to strict rules of inheritance not subject to individual meddling. At the same time, a man or woman may be quite free to alter the normal lines of inheritance of personal property in movables by use of the will. In some instances the spoken will is inviolable; in others, it may be set aside by the living as contrary to law and custom. What is proper and what is improper at this point may often be as troublesome for primitive peoples as it is for us.¹⁰ A case occurring among the Ashanti of West Africa (1942) provides a good example in point. Inheritance of land among the Ashanti runs down the maternal line; it should go from a man to his brother (who belongs to the same maternal clan) and then to a sister's son, but not to a son of either man, for this person belongs to a different clan.

A man when on his death-bed made a dying declaration giving one of his cocoa-farms to his son, and swore an oath enjoining his brother, who was his successor, to see that the gift was honoured. "If you do not give it to him," said the dying man, "I shall call you before the ancestors for our case to be judged."

. . . The man died and his brother succeeded to the property, but refused, with the concurrence of the other members of the family, to give the cocoa-farm to his deceased brother's son. Three months later a fire broke out in the

⁹ A. R. Radcliffe-Brown, "Patrilineal and Matrilineal Succession" (*Iowa Law Review*, Vol. 20, 1935), p. 297.

¹⁰ Cf. B. Malinowski, *Crime and Custom in Savage Society*, for examples.

village. The surviving brother fell from a roof while helping to put out one of the fires, and sustained an injury to his leg from which he subsequently died. Before he died, he told his family that he believed his deceased brother was summoning him to the spirit world to answer for his conduct in not honouring his brother's death-bed declaration. The general belief was that his death was due to his failure to carry out his deceased brother's instructions. The next successor to the property duly gave the cocoa-farm to the son to whom it had been left.¹¹

In the simplest societies inheritance is poorly developed. Nomadic hunters and collectors have few goods. Most of these are the personal working equipment of a man or woman. Because of the universality of belief in an afterlife many primitives assume that the deceased want and need their goods. The result is, as Radcliffe-Brown has noted,

With us one of the most important aspects of succession is the transmission of property by inheritance. Yet in some of the simplest societies this is a matter of almost no significance at all. In an Australian tribe, for example, a man possesses a few weapons, tools, utensils, and personal ornaments, things of little value or permanence. On his death some of them may be destroyed, others may be distributed among his relatives or friends. But their disposal is of so little importance, unless in relation to ritual, that it is often difficult to find any rules of customary procedure.¹²

The same may be said of the African Bushmen, the Andaman Islanders, the Semangs, the Eskimos, and the Shoshones.

In the instance of the Comanches,

. . . in the disposal of a deceased's property there is but one rule which stood out with constancy: upon the death of a person all effects of his (or her) personal usage were destroyed. This included clothing, weapons, saddles, tools, paraphernalia, and horses customarily ridden by the deceased. . . . Further, even the tipi in which the dead person, man or woman, lived was totally destroyed; also for a child, but not for a baby. Articles of intimate personal usage were buried with the corpse. Other less important articles were burned. Possessions with medicine powers were either destroyed by throwing them into the river, or by placing them in an unfrequented tree where they could rot.¹³

All Plains Indians had similar rules. Surpluses were variously handled. The Comanches passed the residual estate to the widow, who in turn was obliged to pass some of it on to her husband's friends and relatives,

¹¹ A. K. Busia, *The Position of the Chief in the Modern Political System of Ashanti*, p. 43.

¹² A. R. Radcliffe-Brown, *op. cit.*, p. 286.

¹³ E. A. Hoebel, *The Political Organization and Law-ways of the Comanche Indians* (American Anthropological Association, Memoir 54: Contributions from the Laboratory of Anthropology, 4, 1940), pp. 120-121.

and especially to nonrelatives, who hung around as enthusiastic mourners; they mourned and mourned until they were given sufficient gifts to stop them. Inheritance by nonrelatives was, in point of fact, characteristic in the Plains area. A family that went the whole way in mourning made itself destitute, until in due time friends and relatives reoutfitted them with gifts.

On the lower levels of culture it is difficult to generalize inheritance rules with accuracy. Often there is no single rule of inheritance controlling all situations, or any single line of practice under any of the legal rules. Our canny Cheyenne informant, Calf Woman, cautioned, "Some families did differently than others."

In general, it may be said that husband and wife do not inherit from each other in the primitive world. This is an easily understood consequence of the nature of marriage as an alliance of two kin groups.¹⁴ What is left by either spouse is more than likely to revert to the family or lineage from which he came. Men's goods are inherited by men, and women's by women. Two factors that are present on the primitive level are responsible for these conditions. The first is the absence or undeveloped state of a free market and money economy. Goods cannot be divorced from use with any appreciable degree of ease. They are not readily convertible into fluid capital. Therefore, they must be possessed by a competent user; the sexual division of labor bars inheritance of sex-linked property across sex lines. Secondly, in all primitive societies a person is more closely tied to his or her kinship group than to the marriage partner. The claims of surviving kinsmen outweigh the claims of the surviving spouse.¹⁵

In the event that a death is followed by a sororal or levirate marriage, the movable property of the deceased spouse stays right in the household of the surviving spouse, and the landed property remains in the relation to the survivor that it exhibited before the death of the spouse. But this is only because of the coincidence of identity of status between the deceased spouse and the one who replaces her (or him) in the household. The inheritance runs from deceased wife to her sister who replaces her, not from deceased wife to husband to his second wife.

Inheritance of usufruct in land follows fairly clear lines. Among matrilineal gardeners, where women till the soil, inheritance runs from mother to daughters. If the picture is complicated with matrilineal organization coupled with virilocal residence and male gardening (as in Trobriand),

¹⁴ Cf. R. F. Barton, "Ifugao Law" (*University of California Publications in American Archaeology and Ethnology*, Vol. 15, 1919), p. 26, for the Ifugao exemplification of this rule.

¹⁵ Cf. R. F. Benedict, "Marital Property Rights in Bilateral Society" (*American Anthropologist*, Vol. 38, 1936), pp. 368-373.

then inheritance runs from mother's brother to sister's son. In parts of Melanesia, although land is inherited matrilineally, fruit trees privately owned by males are inherited patrilineally.

Whether matrilineal or patrilineal organization prevails also strongly influences the lines of inheritance of movable and incorporeal property.

Patrilineal societies favor filial inheritance. Matrilineal societies favor inheritance from maternal uncle to sister's son. It is quite possible for a tribe to subject some forms of property to the avunculate and other forms to paternal succession. It is not necessary that the inheritance system be absolutely consistent with one principle or the other.

The sexual equivalence of brothers in marriage arrangements is reflected in the equivalence of brothers in relation to property. Thus *collateral inheritance*, or inheritance by brothers or sisters from brother or sister in preference to the children, indicates that the members of a fraternity have a solidarity that supersedes that of the conjugal family. Plains Indians applied this rule to the inheritance of horses especially. The generation tie outweighs the filial or avuncular. This may well be reinforced in political inheritance of chiefship, where it is advantageous to avoid letting the mantle of leadership fall on a callow youth.

Incorporeal properties, especially magic formulas and medicine powers, must be partially transferred before death, if they involve secret knowledge. A man may transfer his charms or songs to son or nephew as a gift or without anticipation of his departure from life. In such an event we have a gift *inter vivos*, not properly a matter of inheritance. Or, it may be that the necessary knowledge is taught without transfer to the beneficiary of the right of use until after the death of the donor. Then we have a true case of gift *causa mortis*, gift made in the prospect of death and properly an aspect of inheritance.

Primogeniture. In societies of growing populations given to gardening or agriculture on limited land resources, there is always the problem of dispersal of the family holdings through inheritance by too many heirs. Primogeniture is the solution hit upon by some peoples. All property devolves upon the eldest son, who then has the duty to support the other members of the family in exchange for their labor. "A family must have a strong center," say the Ifugaos. Primogeniture more often applies to inheritance of chiefship and office, however, than to landed property. The mana of the Polynesian chief passes to the first-born son in an unending line. So strong is the primogeniture rule among the Maoris of New Zealand that on occasion a first-born woman takes a man's name and the status of a first-born son.

Primogeniture can be a force in an expansionistic movement. Power and glory are available to second-born sons who found new lineages by leading a group of colonists to unsettled territory.

The evidence is clear for the Maori, and we may infer that primogeniture was a force in Polynesia that worked to drive younger sons out on overseas expeditions of exploration and colonization.¹⁶

How much of the brunt of empire building was borne by the younger sons of Britain who were shut out at home by the laws of primogeniture? In the classical laissez-faire economics of nineteenth-century England primogeniture was hailed as a double-acting social device: it avoided inefficient division of the family inheritance and it forced the younger members to fend for themselves, thus enriching society by their efforts. Those primitives who practice primogeniture recognize the first of these benefits, but it is unlikely that the second ever entered their conscious thoughts. Primogeniture is not much favored in the Western world today. Feudalism is gone, and enterprise capitalism is not favorable to primogeniture.

There are a few tribes that turn the tables completely about. By means of *ultimogeniture* the youngest son inherits the greater portion of the family estate. Among certain peoples of India, Asia, and Africa, the elder brothers are set up with herds or households in part by family resources used in progeny price. What is left over at the father's death tends in cases of ultimogeniture to go to the youngest of them all on the ground that he is the least likely to be well set up in life.

In concluding a discussion of primo- and ultimogeniture a note of caution should be sounded. The vast majority of societies adhere to neither of the set rules.

SUMMARY

As human society rests on reciprocity in social relations, the flow and exchange of goods among peoples is an important aspect of life. Exchange exists both within and between societies. Prehistoric finds prove that early in human history material goods were traded over vast distances. The wide distribution of basic paleolithic culture traditions in the Old World also shows that with intercourse in goods went intercourse in ideas and ways of doing things.

The giving of gifts is the most elemental and ubiquitous mechanism of exchange there is. Gift exchange symbolizes in concrete form the existence of mutual interdependence between individuals and groups. Its function is both utilitarian and social. Trade differs from gift exchange in its greater degree of concern with utilitarian ends. This reaches its extreme expression in dumb barter between hostile groups of primitives and in the development of the market. The *kula* of the Trobriand Islanders and

¹⁶ B. W. Aginsky and P. H. Buck, "Interacting Forces in the Maori Family" (*American Anthropologist*, Vol. 42, 1940), pp. 195ff.

their neighbors exemplifies an elaborate institutionalization of trade for both utilitarian and social purposes.

The worth of goods is determined not only by their materialistic usefulness and real scarcity, but by their symbolic qualities as well. In any event, value is culturally determined, except for the basic necessities without which existence is impossible.

The devolution of statuses with respect to goods from deceased persons to living survivors is what constitutes the inheritance of property. Communal goods cannot be privately inherited, but all forms of joint and private property may be. In many cultures, however, some types of personal property are buried or destroyed at the death of the owner, for their spiritual essence remains tied to their immortal owners.

The most fundamental and general rule governing primitive inheritance is that a person can inherit only those kinds of goods that he or she may customarily use. Thus, "men's goods" may not be inherited by women, and wives are barred from inheritance of such of their husbands' property. Likewise, the same rule holds for women's goods.

In matrilineally organized societies, because each man's kinship status is determined by his affiliation with his mother's kin group, most of his inherited property status must come from male members of that group—his mother's brothers or his own brothers, rather than from his father.

Primogeniture gives precedence to the first-born as a means of preventing dispersal of basic property. Ultimogeniture does just the reverse of this. Where it holds, it is usually in conjunction with the existence of progeny price.

SELECTED READINGS

- Bunzel, R.: "The Economics of Organization of Primitive Peoples," in F. Boas and others, *General Anthropology*, Chap. 8. A useful general summary.
- Firth, R.: *Primitive Polynesian Economy*. A model field study of tribal economic activity.
- Herskovits, M. J.: *Economic Anthropology*, Part III, entitled "Exchange and Distribution." Provides an extensive descriptive and theoretical analysis.
- Mauss, M.: *The Gift: Forms and Functions of Exchange in Archaic Societies*. A comparative study of the social functions of organized gift exchanges in primitive societies and classical civilizations.
- Thurnwald, R.: *Economics in Primitive Communities*, Chaps. 5–9, entitled "Barter," "Trade," "The Market," "Purchase," and "Distribution of Goods and Wealth."

Part Four
PRIMITIVE CULTURE

F. SOCIAL CONTROL.



Government inspector. Otobalo, Ecuador. (From Collier and Buitrón, *The Awakening Valley*, University of Chicago Press, Copyright 1949 by the University of Chicago Press, Copyright under International Copyright Union. Photograph by John Collier, Jr.)

CHAPTER 27. Law and the Social Order

“**I**F YOUR subject is law, the roads are plain to anthropology,” for “it is perfectly proper to regard and study the law simply as a great anthropological document. The study pursued for such ends becomes science in the strictest sense.” Such is the judgment of one of the greatest jurists of the age.¹

The analytical study of law is a social science called *jurisprudence*. The practice of law is a trade or a profession according to the level on which it is practiced. Just as advanced medicine rests on medical science, so must the practice of law rest on juridical science. Anthropological jurisprudence is a branch of juridical science that treats of law as an instrument of society created by man for the use of man. Law has its existence solely in and through society. “The life of the law has not been logic; it has been experience.”²

WHAT IS LAW?

To seek a definition of law is to set forth upon a quest for the Holy Grail. Anyone who has made the search will readily sympathize with the lament of Max Radin, “Those of us who have learned humility have given over the attempt to define law.”³ However, if there is a science of law, there must be a determinable body of phenomena for it to study. We must have some idea of what constitutes law.

Law is obviously a complex of human behavior. The problem is: What

¹ O. W. Holmes, Jr., “Law in Science and Science in Law” (*Harvard Law Review*, Vol. 12, 1899), p. 443.

² O. W. Holmes, Jr., *The Common Law*, p. 1.

³ M. Radin, “A Restatement of Hohfeld” (*Harvard Law Review*, Vol. 51, 1938), p. 1141.

kinds of behavior? What sets off legal behavior from that which is non-legal or other than legal? What is it that makes law law?

It is not legislation, despite contrary notions of typical code-trained European lawyers. Most primitive law is not legislated, and modern sociological jurisprudence and legal realism from Holmes down have made it perfectly clear that much of modern law is not legislated either.⁴ English jurisprudence has long since given assent to this point of view, as witness the remarks by Salmond:

But all law, however made, is recognized and administered by the Courts, and no rules are recognized by the Courts which are not rules of law. It is therefore to the Courts and not to the Legislature that we must go in order to ascertain the true nature of Law.⁵

The now classic formulation of this concept of the nature of law is Cardozo's statement that law is "a principle or rule of conduct so established as to justify a prediction with reasonable certainty that it will be enforced by the courts if its authority is challenged."⁶

This behavioristic concept of law gives the anthropologist a handle he can grasp, but it is still not enough. For if we think of courts in our traditional manner, i.e., a formal sitting of professional judges, with bailiffs, clerks, and advocates, we must conclude: no courts, no law. This is what bothered Max Radin, who well understood the anthropologist's problem, and perhaps led him to assert,

But there is an infallible test for recognizing whether an imagined course of conduct is lawful or unlawful. This infallible test, in our system, is to submit the question to the judgment of a court. In other systems exactly the same test will be used, but it is often difficult to recognize the court. None the less, although difficult, it can be done in almost every system at any time.⁷

Max Radin is right. But what sort of courts did he have in mind? Some courts are difficult to identify. Anthropologically, they may be regularly constituted tribal courts such as the tribal council of an American Indian pueblo sitting in judicial capacity, or a court of the West African Ashanti, constituted of the chief, his council of elders, and his henchmen.

That type of primitive court is not hard to recognize. Any member of the American Bar Association would readily see it for what it is. But a more obscure type of court may be found in the Cheyenne Indian military fraternity. Consider the case of Wolf Lies Down, whose horse was "borrowed" by a friend in the absence of the owner. When the friend

⁴ O. W. Holmes, Jr., "The Path of the Law" (*Harvard Law Review*, Vol. 10, 1897), p. 457.

⁵ J. W. Salmond, *Jurisprudence*, p. 49.

⁶ B. N. Cardozo, *The Growth of the Law*, p. 52.

⁷ Max Radin, *op. cit.*, p. 1145.

did not return from the warpath with the horse, Wolf Lies Down put the matter before his fraternity, the Elk Soldiers. "Now I want to know what to do," he said, "I want you to tell me the right thing." The fraternity chiefs sent a messenger to bring the friend in from the camp of a remote band. The friend gave an adequate and acceptable explanation of his conduct and offered handsome restitution to the complainant in addition to making him his blood brother. Then said the chiefs, "Now we have settled this thing." But they went on, half as a legislature, "Now we shall make a new rule. There shall be no more borrowing of horses without asking. If any man takes another's goods without asking, we will go over and get them back for him. More than that, if the taker tries to keep them, we will give him a whipping." Can anyone deny that the Elk Soldiers were in effect sitting as a court for the entire tribe? The test is first, one of responsibility. That they knew. It is second, one of effective authority. That they achieved. It is third, one of method. Unhampered by a system of formal precedent that required them to judge according to the past, they *recognized* that the rule according to which they were settling this case was *new*, and so announced it.⁸

Among the Yurok Indians of California, as typical of a less specifically organized people, the court was less definite, but it was nevertheless there. An aggrieved Yurok who felt he had a legitimate claim engaged the services of two nonrelatives from a community other than his own. The defendant did likewise. These persons were called *crossers*, because they crossed back and forth between the litigants. The litigants did not face each other in the dispute. After hearing all that each side offered in evidence and argument the crossers rendered a judgment on the facts. If the judgment was for the plaintiff, they rendered a decision for damages according to a well-established scale that was known to all. For their footwork and efforts each received a piece of shell currency called a *moccasin*. Here again we have a court.⁹

On an even more primitive level, if an aggrieved party or his kinsmen must institute and carry through the prosecution without the intervention of a third party, there will still be a court, if the proceedings follow the lines of recognized and established order. There will be then at least the compulsion of recognized legal procedure, although the ultimate court may be the bar of public opinion. When vigorous public opinion recognizes and accepts the procedure of the plaintiff as correct and the settlement or punishment meted out as sound, and the wrongdoer in conse-

⁸ For a full account of this case, see K. N. Llewellyn and E. A. Hoebel, *The Cheyenne Way*, p. 127.

⁹ Cf. A. L. Kroeber, "Yurok Law" (*Proceedings of the 22d International Congress of Americanists*, 1922), pp. 511ff. A dramatic presentation of a Yurok case-in-action is given in *The Ways of Mankind*, Series I, Record 5, "The Sea Lion Flippers."

quence accedes to the settlement because he feels he must yield, then the plaintiff and his supporting public opinion constitute a rudimentary sort of court, and the procedure is inescapably legal.

Consider the Eskimo dealing with recidivist homicide. Killing on a single occasion merely leads to feud, inasmuch as the avenger enjoys no recognized privilege of imposing the death penalty on the murderer or his kinsman with immunity against a counterkilling. A feud, of course, is an absence of law, since blood revenge is more a sociological law than a legal one. But to kill someone on a second occasion makes the culprit a public enemy in the Eskimo view. It then becomes incumbent upon some public-spirited man of initiative to interview all the adult males of the community to determine whether they agree that he should be executed. If unanimous consent is given, he then undertakes to execute the criminal, and no revenge may be taken on him by the murderer's relatives. Cases show that no revenge is taken.¹⁰ A community court has spoken. Such are the kinds of courts Max Radin had in mind.

Although courts in this sense exist in most primitive societies, insistence on the concept of courts is not really necessary for the determination of law. The really fundamental *sine qua non* of law in any society is the legitimate use of physical coercion. The law has teeth, and teeth that can bite, although they need not be bared, for as Holmes put it, "The foundation of jurisdiction is physical power, although in civilized times it is not necessary to maintain that power throughout proceedings properly begun."¹¹ We would merely add to that declaration that it was not necessary to limit the latency of power to civilized times; primitive men often found that it was not necessary to display the power behind the law when the defendant acceded to proceedings carried through properly. Jhering has emphasized the factor of force in law. "Law without force is an empty name." Again, more poetically we find, "A legal rule without coercion is a fire that does not burn, a light that does not shine."¹² In this we agree.

But force in law has a special meaning. Force means coercion, which in its absolute form is physical compulsion. There are, of course, as many forms of coercion as there are forms of power, and only certain methods and forms are legal. Coercion by gangsters is not legal. Even physical coercion by a parent is not legal, if it is extreme in form. The essentials of legal coercion are general acceptance of the application of physical power, in threat or in fact, by a privileged party, for a legitimate cause, in a

¹⁰ For a type case, see F. Boas, *The Central Eskimo* (Bureau of American Ethnology, Annual Report 6, 1888), p. 668.

¹¹ O. W. Holmes, Jr., *McDonald v. Maybee* (*Supreme Court Reporter*, Vol. 37, 1917), p. 343.

¹² R. von Jhering, *Law as Means to an End*, p. 190.

legitimate way, and at a legitimate time. This distinguishes the sanction of law from other social rules.

The privilege of applying force constitutes the official element in law. He who is generally or specifically recognized as rightly exerting the element of physical coercion is a fragment of social authority. It is not necessary that he be an official with legal office or a constable's badge. In any primitive society the so-called "private prosecutor" of a private injury is implicitly a public official *pro tempore, pro eo solo delicto*. He is not and cannot be acting solely on his own, his family's, or his clan's behalf and yet enjoy the approval or tacit support of the disinterested remainder of his society. If the rest of the tribal population supports him in opinion, even though not in overt action, it can only mean that the society feels that the behavior of the defendant was wrong in its broadest implications, i.e., contrary to the standards of the society as a whole. Thus it is in itself an injury to the society, although the group feeling may not be strong enough to generate overt and specific action by the group as a group and on its own initiative. However, the private prosecutor remains the representative of the general social interest as well as that which is specifically his own. This fundamental fact is ordinarily ignored in discussions of primitive law, and it is in this sense that we may say that the difference between criminal law and private law is a difference in degree rather than in kind, though there can be no doubt that some matters touch the general interest in fact and feeling much more vigorously than others in primitive law, e.g., sacrilege, homicidal tendencies, and, frequently, treason.

Regularity is what law in the legal sense has in common with law in the scientific sense. Regularity, it must be warned, does not mean absolute certainty. There can be no true certainty where human beings enter. Yet there is much regularity, for all society is based on it. In law, the doctrine of precedent is not the unique possession of the Anglo-American common-law jurist. Primitive law also builds on precedents, for new decisions rest on old rules of law or norms of custom, and new decisions tend to supply the foundation for future action.

Hence we may say that *force*, *official authority*, and *regularity* are the elements that modern jurisprudence teaches us we must seek when we wish to differentiate law from mere custom or morals in whatever society we may consider.

Thus we may form a working definition of law that fits primitive as well as civilized law in the following terms: *a law is a social norm the infraction of which is sanctioned in threat or in fact by the application of physical force by a party possessing the socially recognized privilege of so acting.*

It is necessary to qualify the element of application of physical force

with the phrase "in threat or in fact," since substitutes for physical force are often used in the form of confiscation of property by means of damages or fines. But always there is the final resort of physical punishment, if the offender balks at confiscation or resists whatever other substitutes the law enforcers apply.

Recognition of the privilege of applying the sanctions prevents revenge reactions by the offender or his kin. Where this does not exist there is no legal law. Thus the so-called "law of blood revenge" unrestrained by social limitations is no law at all but is merely a social norm. When the killing of a murderer by his victim's kinsmen leads to a counterkilling, and on and on, we have the reign of feud, not of law. Feud is internecine warfare. It is a form of anarchy, not order. Such is the present law of nations, which measured against the background of the world society is amazingly similar to private law on the primitive level.

Primitive law is predominantly private law. The concept of community of interests is not easily recognized by men on the more primitive levels of life. For them kinship is more real than society. The family and the clan are often preferred as the security group, as has been seen in an earlier chapter. Thus, offenses are more often seen and treated as injuries primarily to individuals and the kin group rather than as crimes against the society as an entity.

ESKIMO LAW

The Eskimos serve well as an example of law on the lowest levels of cultural development. The small Eskimo local group rarely numbers more than 100 heads. Its organization is based on the bilateral family, beyond which there is nothing. There is no lineage, no clan, no clubs of either men or women, and no government. Each group has its headman, he who is "tacitly, half-unconsciously recognized as first among equals," he who is variously called *ihumatak* "he who thinks (for others)," *anaiyuhok* "the one to whom all listen," or *pimain* "he who knows everything best." The headman leads, but he does not govern. He lends direction to his people's activity, but he does not direct. No Eskimo will give an order to another; therefore the headman exercises no legal or judicial authority.

Many acts that we consider heinous are accepted as necessary by the Eskimos. Thus certain forms of homicide are socially justified and legally privileged. Infanticide, invalidicide, suicide, and senilicide fall in this category. They are all responses to the basic principle that only those may survive who are able, or potentially able, to contribute to the subsistence economy of the community. Life is precarious in the Arctic.

There can be few legal offenses against property among the Eskimos,

since there is no property in land, and free borrowing of goods makes stealing pointless.

Eskimo law grows out of the aggressive status struggle that bedevils the men. The society is wholly democratic, but prestige rivalry among the men is strong. Status is attainable by superior hunting skill and by stealing the wives of other men. The better the reputation of a man, the more likely he is to have his wife stolen. The reason behind wife stealing is not primarily sexual. An Eskimo can enjoy sex without running the risks involved in home breaking. The motive lies in an attempt to out-rank the man whose wife he takes, if he can get away with it.

Wife stealing is not a crime, but most litigation arises from it. The challenge results either in murder or wager of song, wrestling, or buffeting. Rasmussen found that all the adult males in a Musk Ox Eskimo group had been involved in murder, either as principals or as accessories; "the motive was invariably some quarrel about a woman."¹³ The fact that Eskimo husbands will lend their wives does not mean that they are free of sex jealousy. If a man lends his wife, he enjoys the prestige of a giver of gifts. But if another man assumes sexual rights without permission, that is adultery and an assault on the husband's ego that cannot go unchallenged. Murder must be avenged, sooner or later. And since it is usual Eskimo custom for the killer to marry his victim's widow and to adopt his children, a man may raise the boy who will slay him when he comes of age.

The alternative to killing an aggressor (and thus becoming involved in feud) is to challenge him to a juridical song contest. In the manner of Provençal troubadours of the thirteenth century, the two litigants scurrilously abuse each other with songs composed for the occasion.

Now I shall split off words—little sharp words
Like the splinters which I hack off with my ax.
A song from ancient times—a breath of the ancestors
A song of longing—for my wife.
An impudent, black-skinned oaf has stolen her,
Has tried to belittle her.
A miserable wretch who loves human flesh.
A cannibal from famine days.

Like amateur night at the local theater, he who receives the most applause wins. Thus is the case settled without reference to the right or wrong of the case. But what is more important, the dispute is laid to rest.

Recidivist homicide, excessive sorcery (which is *de facto* recidivist homi-

¹³ K. Rasmussen, *Across Arctic America*, p. 250. The full flavor of the song duel is given in the radio drama, "The Case of the Borrowed Wife: Eskimo," *The Ways of Mankind*, Series II, Record 1.

cide), and chronic lying are crimes punishable by death under the procedure described earlier in this chapter. Such is the nature of rudimentary law in the Eskimo anarchy.¹⁴

COMANCHE LAW

Comanche Indian law-ways represent a somewhat higher development on the same general plane as Eskimo law.

The Comanches had chiefs, both civil and military. The band was larger than the Eskimo local group, and the Comanches had considerable property, especially in horses.

They shared with the Eskimos a fierce drive toward male dominance and competitive rivalry among males for status by means of wife stealing. To this they also added the road of military glory. The Comanches recognized nine common legal offenses against the individual, viz., adultery, wife absconding, violation of levirate privileges, homicide, killing a favorite horse, sorcery, causing another person to commit suicide (a form of homicide), failure to fulfill a contract, and theft.

Homicide called for the killing of the offender by the aggrieved kin of the dead man. This was a true legal penalty inasmuch as custom prevented the kin of the man so executed from retaliating.

Adultery and wife absconding were handled variously, but in every case the aggrieved person was forced by public opinion to act. He could, and often did, proceed directly against the erring wife, killing her, cutting off her nose, or otherwise mutilating her hapless body. This was a husband's legal privilege. Or, if he preferred, he could collect damages from the male offender. This would be done by a direct demand. Whether he got what he first went after or not depended on how courageous the defendant was. If the aggrieved husband, on his part, was not strong enough or fearless enough, he could call in his friends or kinsmen to prosecute for him. But then "the lawyers got the a' of it." Or, lacking kin and friends, he could call upon any brave warrior to prosecute for him. Great braves were willing, for prestige reasons, to do this without any material recompense whatever.

The Comanches recognized no clear-cut types of criminal offenses. There are a couple of cases, half-legendary, of obnoxious sorcerers who were lynched, which indicates that excessive sorcery was a crime. Unlike most Plains tribes, the Comanches did not consider violation of the rules of the communal buffalo hunt to be a clearly defined crime.¹⁵

¹⁴ E. A. Hoebel, "Law-ways of the Primitive Eskimos" (*Journal of Criminal Law and Criminology*, Vol. 31, 1941), pp. 663-683, or *The Law of Primitive Man*, Chap. 5.

¹⁵ E. A. Hoebel, *The Political Organization and Law-ways of the Comanche Indians* (American Anthropological Association, Memoir 54: Contributions from the Laboratory of Anthropology, 4, 1940), or *The Law of Primitive Man*, pp. 127-142.

IFUGAO LAW

The Ifugaos represent yet another interesting example of law on the primitive level of organization. These mountain-dwelling head-hunters of Luzon possess no government worthy of being called such. Over 100,000 tribesmen live scattered throughout the deep valleys that crease their rugged homeland. Although there are clusters of houses in the more favorable spots, they have not even formed true villages, nor do they have a clan organization. But the bilateral group of kinsmen is tightly knit. In the course of centuries, the Ifugaos have carved the steep walls of their mountains into stupendous rice terraces fed by intricate irrigation systems. Their paddies are privately owned and protected by a complex body of substantive law. Ifugaos are capitalists who have many legal rules controlling credit and debt. In addition, they are litigious in the extreme, for each man is sensitive about his "face" and quick to take offense. Their list of possible legal wrongs is long indeed.

How do they handle a legal case? A man with a grievance or a claim tries first to exact a satisfactory settlement from the opposite party. Failing this, he must go to a *monkalun*, a man of the highest social class, who has a reputation as a man of affairs and a number of enemy heads to his credit. The *monkalun* hears his story. Next he accosts the defendant with the charges. The defendant in turn pleads his cause. Meanwhile, both plaintiff and defendant are marshaling their fighting relatives—just in case. The *monkalun* shuttles back and forth between the two parties, wheedling, arguing, threatening, cajoling—attempting to induce them to give ground so that they may meet on terms acceptable to each. Customary law makes the penalties and obligations of both parties quite explicit for every conceivable offense. But first there must be agreement on the exact nature and degree of the offense. Claim must be balanced against counterclaim. Each side weighs the fighting strength and inclination of the other. But at long last, if the patience of the *monkalun* and the litigants endures, a settlement is reached and damages are paid (if it is an assault case) or the debt is satisfied (if it is an economic dispute). But if no settlement satisfactory to each disputant is reached, the *monkalun* finally withdraws from the case. Then the plaintiff or his kinsmen undertake to kill the defendant—or any convenient kinsman of his. Feud is forthcoming. The creaking legal machinery has broken down.¹⁶

The *monkalun* represents the public interest by his intervention. Yet he is only incipiently a public officer. He makes no decision and enforces no judgment, but he provides the means through his good offices of bringing disputants to a resolution of their conflict. All Ifugao legal of-

¹⁶ Ifugao procedure is fully dramatized in "The Case of the Bamboo-sized Pigs: Ifugao," in *The Ways of Mankind*, Series II.

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fenses are wrongs to be prosecuted by the aggrieved individual. There are no recognized crimes against society at large.¹⁷

CHEYENNE LAW

The Cheyenne Indians represent a more mature and sophisticated development of law on the middle level of primitive culture. The state was well organized. It had a large tribal council of civil chiefs with a ten-year tenure of office. There were no clans, but military societies flourished.

Adultery was a private wrong, but most rare. Wife absconding was not culturally countenanced and gave little cause for trouble. Prestige drives in Cheyenne life had been effectively socialized or turned against the outside world. A man made his aggressive record against enemies, not against fellow tribesmen.

Homicide was a sin and a crime. As a sin it corrupted the viscera of the killer, which "rotted within him," so that he gave off a putrid odor. His stench was obnoxious to the buffaloes, who shunned the Cheyennes, so that starvation threatened. What is more, murder still pollutes the four sacred Medicine Arrows that are the tribal fetish. Blood gets on the feathers. And while blood is on the Arrows, bad luck dogs the tribe. To purify the Arrows and clear the air, two things must be done. In the old days, the great tribal council sat in judgment. The murderer was exiled. Then an impressive ceremony of purifying the Arrows was performed before the whole tribe—with the exception of murderers and their families.

Such a system makes blood revenge, feud, and capital punishment impossible. The Cheyennes in their own way had found the means to suppress internal disruption without recourse to autocracy.

Violation of the rules of the annual communal buffalo hunt was summarily punished by the military society in charge of the occasion. The culprit's weapons were destroyed and his horse beaten. But if he showed contrition, the very men who punished him bestowed free gifts upon him to set him once more on the road to right living. The Cheyennes understood that the purpose of punishment is to correct and reform.¹⁸

ASHANTI LAW

Finally, the Ashanti of West Africa may be cited as a primitive people well on the road toward civilized law by the middle of the last century. Today they are part of the new nation of Ghana.

¹⁷ R. F. Barton, "Ifugao Law" (*University of California Publications in American Archaeology and Ethnology*, Vol. 15, 1919); also, E. A. Hoebel, *The Law of Primitive Man*, Chap. 6.

¹⁸ Llewellyn and Hoebel, *op. cit.*, Chaps. 4-7; Hoebel, *op. cit.*, pp. 142-169. The reformation of a Cheyenne delinquent is portrayed in "The Case of the Borrowed Horse: Cheyenne," in *The Ways of Mankind*, Series II.

The Ashanti are a powerful nation with a constitutional monarchy. Clan feuding has been checked and all private law brought within the potential jurisdiction of the royal criminal courts. Any private dispute ordinarily settled between the household heads of the two disputants can be thrown into royal hands by the simple device of one of the quarreling persons swearing an oath on the Great Forbidden Name of a god that the other is guilty of an offense against him. In rebuttal his adversary swears on the same forbidden name that he did not commit the wrong. One or the other is guilty of a false oath—perjury. This act is a capital crime for which the liar must lose his head.

Whoever hears the swearing must arrest the two, for every citizen is the king's agent in such an event. He leads them to a log kept for the purpose and chains them to it, after which he trots off to the king's bailiff with the news. A day for the trial is set. When hauled before the king and his council of elders, each litigant tells his story.

The stories are repeated verbatim by the king's speaker, and each affirms the accuracy of the repetition. So is the issue joined. Now one or the other of the prisoners before the bar names a witness. He is brought forth to swear a deadly conditional curse that what he shall say is the truth of the matter. In this the Ashanti place implicit faith, for the whole trial hinges on what is now said. On the testimony of the single witness, one party is freed and the other condemned to be beheaded—unless the king in deference to the needs of his treasury allows the luckless one "to buy his head," i.e., pay a fine.¹⁹

Aside from this crude but remarkable device for extending the king's peace, there is also a great body of criminal regulations, every one of which is punishable by death. These range from homicide—"only the king may wield the knife"—to carrying a chicken on top of a load. Even sui-



Fig. 27-1. Contemporary Ibo statuette of a condemned man and woman serving their punishment.

¹⁹ Ashanti procedure and the techniques of shifting a quarrel from the area of private law to criminal are dramatized in "The Forbidden Name of Wednesday: Ashanti," *The Ways of Mankind*, Series II.

cide is a capital offense. It constitutes a usurpation of the king's exclusive right to kill. The corpse of the suicide is hauled into court, tried, and decapitated. As a more practical gesture, his properties are also confiscated on behalf of the king.

Ashanti criminal law overreached the mark in much the same way as the law of eighteenth-century England with its 200 capital crimes. It is significant as an example of the way that monarchy becomes the means of expressing the social interest in the maintenance of order by replacement of private law by criminal. This is a genuine social advance over the chaos of societies that allow feuding.²⁰

THE GROWTH OF LAW

Modern jurisprudence has much to tell the anthropologist about leads for the study of the formation of law through the processes of litigation. Sociological jurisprudence points up the fact that breach and disputes in conflicts of claims are the most constant source of the law. "Breach," says Seagle, "is the mother of law as necessity is the mother of invention."²¹ On the authority of Holmes we have it that "a law embodies beliefs that have triumphed in the battle of ideas and then translated themselves into action," and in the same vein Pound has written, "The law is an attempt to reconcile, to harmonize, to compromise . . . overlapping or conflicting interests."²² Law exists in order to channel behavior so that conflicts of interest do not come to overt clash. It comes into existence to clear up the muddle when interests do clash. New decisions are ideally so shaped as to determine which interests best accord with the accepted standards of what is good for the society. Of course, it is unfortunately true that tyrants, usurpers, and pettifoggers can and do pervert the ends of law to their own designs without regard to social interests or prevailing standards of what is right.

As a canon of realistic law it may be said, and this is particularly important for anthropologists, that unless a dispute arises to test the principles of law in the crucible of litigation, there can be no certainty as to the precise rule of law for a particular situation, no matter what is said as to what will or should be done. A law that is never broken may be nothing more than an omnipotent custom, for one will never know more than this until it is tested in a legal action.

The role of the claimant is the most important single factor in the

²⁰ This description applied a century ago. R. S. Rattray, *Ashanti Law and Constitution*; A. K. Busia, *The Position of the Chief in the Modern Political System of Ashanti*; Hoebel, *op. cit.*, Chap. 9.

²¹ W. Seagle, *The Quest for Law*, p. 35.

²² R. Pound, "A Theory of Legal Interests" (*American Sociological Society, Publications*, Vol. 16, 1920), p. 44.

development of law in primitive societies. Numerous writers have commented upon the relative absence of legislative enactment by primitive government. Lowie, who is distinguished among American anthropologists for his unique contributions to the study of legal phenomena, has offered a general statement that is fairly typical of the prevailing opinion: ". . . it should be noted that the legislative function in most primitive communities seems strangely curtailed when compared with that exercised in the more complex civilizations."²³ Salmond parallels this with the statement that "the function of the State in its earlier conception is to *enforce* the law, not to *make* it."²⁴ Lowie continues, "All the exigencies of normal social intercourse are covered by customary law, and the business of such governmental machinery as exists is rather to exact obedience to traditional usage than to create new precedents."²⁵

Now this would be true for wholly static societies, but, as Lowie would be among the first to acknowledge, no society is wholly static. New exigencies always arise. One thing permanent about human society is its impermanence. Especially when strange cultures come into contact do new materials, new ways of behaving, and new ideas enter into the cultural picture.

These new elements are not usually adopted simultaneously by all members of the society. The inevitable consequence is that when some members get new goods and new ideas, they have new interests for which the old lines of the culture have made no provision. Their use of their new acquisitions almost certainly comes into conflict with the old standards held by others. New custom and new law must then be generated.

However or by whomsoever the judgment may be rendered in any dispute, it is the claimant and the defendant who lay the grounds of the claim and counterclaim or denial. If one or the other does it skillfully, soundly, and wisely, the basis of decision is likely to be found in his statement of his claim. No matter how selfish the motivation of a disputant may be, unless he be a fool indeed, he poses his claim against the background of "right" social principles, general rightness, and the well-being of the entire social group. How else can he gain enduring social acceptance of his position? Naturally, also, the more skillfully he argues his case in terms of the consonance of his claim with the well-established principles of social order, the greater the probability that he will shape the law as he wishes it to be determined.²⁶

²³ R. H. Lowie, *Primitive Society*, p. 358.

²⁴ Salmond, *op. cit.*, p. 49.

²⁵ Lowie, *op. cit.*, p. 358.

²⁶ Many examples of this process may be found in Llewellyn and Hoebel, *op. cit.*, or in J. Richardson, *Law and Status among the Kiowa Indians* (American Ethnological Society, Monograph 1, 1940). Because Cheyenne and Kiowa societies were undergoing rapid change during the period covered by these studies, the process of judicial lawmaking was more intensified than is the case in more stable cultures.

EVIDENCE

Any lawsuit or criminal trial involves at least two questions. Is the alleged offense an illegal act? If so, is the defendant guilty of the offense? The first is a question of law. The second is a question of fact. If the first can be brought to a negative answer, then there is no need to seek an answer to the second. The case must be dropped.

Assuming there is a legal rule covering the alleged act, how are the facts then determined?

On the lower levels of legal development the question of evidence is not of great importance. In a small community not much behavior is secret. As a Shoshone once commented to the author, "They just wait around. Sooner or later the facts will come out." In Comanche trials the question of guilt or innocence was rarely raised. The usual point of argument was only the extent of damages.

Judges or prosecutors with skill in cross-examination or detectives with mastery of the techniques of scientific investigation are not of the primitive world. Extortion of confessions by third-degree methods occurs in a few tribes, as in the case of the Comanche husband who could choke his wife or hold her over a fire until she named her lover. But more commonly the primitive man, when he cannot get at the facts by direct means, has recourse to the supernatural.

Divination is the most common device. An Eskimo seer ties a thong around the head of a reclining person, or a bundled coat, or even the diviner's own foot. When the proper spirit has entered the object, the questions may be put. As it is hard or easy to lift, the answer is "yes" or "no."

Among many North American Indians, the still surface of water that has been put into the abdominal cavity of an animal reveals the image of the culprit. "Just as easy as reading a newspaper," said Post Oak Jim, the Comanche. Trobriand Islanders dig up the newly buried corpse of a dead person to see what signs it may reveal. Maggots mean the lamented one was killed by the chief's sorcerer for having been too successful with women. If the lips are pursed, the same conclusion is indicated. Blotches of color on the skin mean he painted his house too ostentatiously for one of his social station, and so was done in by a jealous chief.

The Azande of Africa feed poison to a chicken, declaring repeatedly, "If this charge is true, let the chicken die. If this charge be false, spare its life." After the first chicken has responded, a second is given the test but with the invocation reversed (if the charge be true, let the chicken live; if it be false, let it die). Thus if the first chicken dies and the second lives, the allegation is confirmed.²⁷

²⁷ E. E. Evans-Pritchard, *Witchcraft, Oracles and Magic Among the Azande*, pp. 258-351.

Conditional curse enters into trial procedure among almost all peoples. It is the assertion that always includes or implies the clause, "if what I say is not true, *then* may the supernatural destroy me." "You [Sun] saw me. May the one who lies die before winter."²⁸

Even our own courts do not rely wholly upon our laws against perjury, since every witness must first swear a conditional curse—"So help me God." ("May God smite me, if I lie!") Or is it, since the laws of criminal perjury are more recent than the conditional curse, that the courts do not have full faith in the efficacy of the curse?

Oath is merely a formal declaration that the testimony given is true. It may or may not imply the sanction of a supernatural power against falsehood. Often it is accompanied by a ritual act, as touching the pipe to the lips among Indians, or touching an arrow laid across the horns of a buffalo skull.

Ordeal is peculiarly rare in the New World, which was to the good fortune of the Indians, to say the least. But most of the hideous forms known to medieval Europe were practiced with variations throughout Asia, Indonesia, and Africa. The ordeal by hot iron, with which Ibsen opens his historical play *The Pretenders*, had its counterpart in Ifugao. Various Philippine tribes used the old technique of tying up the two litigants and throwing them in a river. He who rose to the surface first was guilty. Ordeal by poison is popular in Africa. In Ashanti the defendant to a trial may drink a poison brew. If he vomits, he is innocent. If he does not vomit, he dies. And that is proof enough for any man.

THE CULTURAL BACKGROUND OF LAW

The reader should now hark back to the discussion of the integration of culture in Chapter 10. There it was established that each society is confronted by the imperative of selection in the formation of its culture. Human behavior must be narrowed down from its full range of potential variety to a moderately limited body of norms. Expectancies of probable behavior must be maintained so that people can manage their lives with a high degree of certainty that their own activities will achieve anticipated responses and results from their fellow men. Culture sets such patterns. It was also shown that selectivity in the building of cultures is done in accordance with a number of basic postulates, existential and normative. Social control is exercised to guide the learning process; it rewards success in adaptation to the norms and expectancies. It penalizes failure in adaptation and deviation from the norms and expectancies. Law is an aspect of social control. It is one of the major devices used by society to penalize behavior that varies too much from certain selected norms.

²⁸ R. H. Lowie, *The Crow Indians*, p. 217.

Substantive law identifies the norms that are to be sanctioned by legal action. *Procedural* or *adjective law* consists of the legal designation of the persons who may rightly punish a breach of substantive law as well as how and under what circumstances.

In most instances, substantive law undertakes to translate basic cultural postulates into social action by decision as to what particular behavior in a given instance may best be interpreted as conforming to the basic assumptions underlying the culture. Law implements the imperative of selection by saying implicitly, "In this society this is permitted and that is not." Law is, therefore, a major instrument in the shaping and maintenance of cultures.

Law in culture performs four fundamental functions essential to the maintenance of society:

1. The first is to define relationships among the members of a society, to assert what activities are permitted and what are ruled out, so as to maintain at least minimal integration between the activities of individuals and groups within the society.

2. The second is derived from the necessity of taming naked force and directing force to the maintenance of order. It is the allocation of authority and the determination of who may exercise physical coercion as a socially recognized privilege-right, along with the selection of the most effective forms of physical sanction in order to achieve the social ends which law serves.

3. The third is the disposition of trouble cases as they arise so that social harmony may be reestablished.

4. The fourth is to redefine relations between individuals and groups as the conditions of life change.²⁹

Any society may manage these functions with more or less skill; its legal system may function with sure effectiveness, achieving justice and order with a minimum of bungling and harshness; or it may be crassly brutal, clumsy and stiff in the joints, with order the product of tyranny and justice a fugitive in the land.

THE TREND OF THE LAW

It is a seeming paradox, on first thought, that the more civilized a society becomes the greater is the need for law, and the greater the law becomes. But it is no paradox if the functions of law are kept in mind. Simple societies have little need of law, and on the earliest levels of human culture there were probably no legal institutions. In such rude contemporary groups as the Shoshones, Eskimos, Andaman Islanders, and African Bushmen there is little of what we would call law. Almost all

²⁹ Hoebel, *op. cit.*, p. 275.

relations in the tribe are face-to-face and intimate. The demands imposed by culture are relatively few; child training is direct and comprehensive. Ridicule is keenly felt, for there is no escape in anonymity. Tabu and the fear of supernatural sanctions cover a large area of behavior. Special interests are few, for there is little accumulated wealth. Conflict arises mostly in interpersonal relations. Hence, homicide and adultery are the most common legal focuses. Sorcery as a form of homicide always looms large as an illegal possibility, but among the simpler peoples sorcery, which uses supernatural techniques, is usually met with supernatural countermeasures rather than with legal action.

Among the higher hunters, the pastoralists, and the ruder gardening peoples, the size of the group and the increased complexity of the culture make possible greater divergence of interests between the members of the tribe. Conflict of interests grows and the need for legal devices for settlement and control of the internal clash of interests begins to be felt. Private law emerges and spreads. It exerts a restraining influence but, like the clan, it has inherent limitations that prevent it from completely satisfying the need it must meet. As no man is competent to judge his own cause, procedure under private law leads too often not to a just settlement but to internecine fighting. A society that is to advance beyond the limited horizons of lower savagery must master the feudistic tendencies of kin-group organization. And every society that has survived for us to study has some set procedures for avoiding feud or for bringing it to a halt if once it gets under way.

As the scope of commonality expands, as community of interest reaches out beyond the kindred and clan, beyond the local group and tribe, men gradually create the means to check internecine strife within the bounds of the larger society through the expansion of the scope of law.

Experience in the development of other branches of culture is also accompanied with experience in the manipulation of the social-control phases of culture. Instruments and devices of government are created. To a greater and greater extent private law is replaced by public law. The state and its agencies corrode away the family and its legal powers. "Through all its course, the development of society," wrote Maine, "has been distinguished by the gradual dissolution of family dependency and the growth of individual obligation in its place."³⁰

The individual takes his place in a legal system sustained and operated almost wholly under public control. The kinship element is not dead in modern civilization but it is much reduced in relative importance, and government and public law have filled much of the space formerly occupied by it.

The next development is clearly the final emergence of an area of law

³⁰ H. S. Maine, *Ancient Law*, p. 163.

framed and administered by a world commonwealth. Ultimately, it shall be this or regression. Today primitive law prevails between nations. By and large, what passes as International Law consists of no more than normative rules for the conduct of affairs between nations as they have been enunciated and agreed upon from time to time by means of treaties, pacts, and covenants. In addition, a body of prevailing custom in international intercourse, recognized by tacit consensus or verbalized in arbitration, World Court awards and United Nations decisions, provides the other main source of its substance. But this body of social norms for international intercourse is as yet no more than the by-laws of the sub-groups we call nations. International law now consists of substantive rules without imperative legal sanctions.

The United Nations today, like the League of Nations of yesterday, because the power of universal coercive, absolute force is withheld from it, cannot make law of the international norms upon which it determines. Whatever the idealist may desire or the nationalist fear, force and the threat of force remain the ultimate power in the implementation of law between nations, as they do in law within the nation or tribe. But until the use of force and the threat of force as now exercised by nation against nation are brought under the socialized control of a world community, by and for world society, they remain not the sanctions of world law but the instruments of social anarchy and the constant threat to the survival of present civilizations.

The metamorphosis from primitive law to modern on the plane of international intercourse awaits the emergence of the consciousness of world community by all men. If the fulfillment comes in our times, it shall be our happy destiny to participate in the greatest event in the legal history of mankind.

SUMMARY

Law is that part of culture which is devoted to the regulation of behavior through the socially approved use, or threat of the use, of physical force. Law has four major functions: (1) to identify acceptable lines of behavior for inclusion in the culture and to penalize contradictory behavior, so as to maintain at least minimal integration between the activities of individuals and groups within the society; (2) to allocate authority and to determine who may legitimately apply force to maintain the legal norms; (3) to settle trouble cases as they arise; and (4) to re-define relationships as the conditions of life change, so as to help keep the culture adaptable.

Among simpler primitive tribes the responsibility and privilege of enforcing the law rest for the most part with the injured individual and

his kinsmen. Such law is called *private law*. Enforcement of private law is possible without recourse to feud because the kinsmen of the wrongdoer recognize the rightness of the plaintiff's case, or they are impelled by public opinion to recognize it, or because they fear the inconvenience or danger that feud may engender. Virtually all known societies have legal methods for settling disputes or for controlling feud once it gets started. Feud represents an absence or breakdown of law.

Public, or criminal, law is that law in which the responsibility for prosecution and punishment rests with the entire society or its special agents. It exists on the lower primitive levels but tends to become more and more important as societies evolve in complexity. The trend of the law has been one of an increasing shift of responsibility for the maintenance of legal norms away from the individual and his kinship group to the agents of the society as a whole. As society expands, so does the scope of the law, for unless the functions of law are adequately fulfilled, the existence of the society is endangered.

SELECTED READINGS

- Gluckman, M.: *The Judicial Process Among the Barotse of Northern Rhodesia*. How trouble cases are settled in a South African tribe.
- Hoebel, E. A.: *The Law of Primitive Man*. Presents a theory of law and society. Describes and analyzes the legal culture of seven selected primitive societies, followed by a functional interpretation of law in culture.
- Llewellyn, K. N., and E. A. Hoebel: *The Cheyenne Way: Conflict and Case Law in Primitive Jurisprudence*. Contains a number of case records of Cheyenne legal disputes and a systematic analysis of the law-ways of this remarkable Indian tribe.
- Schapera, I.: *A Handbook of Tswana Law and Custom*. A very competent and thorough treatment of the social system and formal law of an African tribe.
- ter Haar, B.: *Adat Law in Indonesia*. A highly condensed, comparative summary of primitive law in Indonesia. Informative but formalistic and nonfunctional in its method.

CHAPTER 28. Government

THE ONLY kind of society that could be said to be without political organization would be one consisting of a single bilateral extended family within which there were no organized subdivisions. Sex and age differences would be present, to be sure, and there would be one or two religious specialists. But the society would be organized as a single large family operating under familial controls. All problems would be settled as family problems, and there would be no other divisive groupings within the community. Family and community would be one.

This kind of society is approximated among some of the simpler primitive peoples, as the Shoshones, but it exists nowhere among men today, nor has it been observed to have existed since written records have been kept.¹

Political organization comes into being wherever societies are segmented on the basis of kinship, economics, religion, sex, fraternities, or community. Where there are subgroups that are discrete entities within the social entirety, there is political organization—a system of regulation of relations between groups or members of different groups within the society at large.

THE STATE

The idea of state embodies three elements: (1) a territory, (2) a people, and (3) a government. A state begins in community, a society with a territorial base. Our earlier discussions of subsistence techniques and property in land have indicated the importance of ecological relations, the patterns of adjustments of human populations to the territory in

¹ "Among all known people—the autonomous, land-owning socio-political group is greater than the bilateral family." J. H. Steward, "The Economic and Social Basis of Primitive Bands," in *Essays in Anthropology in Honor of Alfred Louis Kroeber*, p. 333.

which they live. Because skillful exploitation of the immediate environment is absolutely essential to survival, man, like all other living creatures, develops an intimate relation to his soil, its plants, its lakes, rivers, springs, and its denizens. In cooperation with his day-to-day fellows he works it for all that his technology enables him to win from it. The group molds its culture to the offerings of its territory, and although migrations are common, the general pattern is for a people to hold fast to the land they know—and come to love.

Because the members of a community live together under a common culture, they share their patterns of living and ideas in common to a large extent. Community means commonality in which diversity exists but unity prevails in the long run. Community means that the feeling of oneness, a sense of entity, an *esprit de corps*, extends to the whole territorial society.

It means that the culture sets values that orient behavior in the direction of common as well as individual or subgroup interests. The common interests are what constitute political interests. The community is the polity. Political organization, therefore, is that part of the culture which functions to direct the activities of the members of the society toward community goals.

The state is an institution among other institutions within a given community's culture. It is not the society or the community; it is a complex of behaviors characteristic of the members of the community in one part of their lives—the political. Thus, as Linton observed, the tribe is a social entity marked by a sentiment of community due to common culture; the state is a subentity marked by common political organization—with or without a well-developed government.²

Government is to be thought of as the practicing executive instrument of the state. Says MacIver, "When we speak of the state we mean the organization of which government is the administrative organ." All citizens are members of a state, but only a few of them may be a part of its government. The personnel of government are the specialists and functionaries who perform the state's business. They are the headmen, chiefs, kings, council members, and their various aides.

Three Principles of Organization. The political organization of a state uses three major principles as the basis of its structure. These are: (1) genealogical or kinship, (2) geographical or territorial, and (3) special-interest associations.

Primitive states, as has already been shown in previous chapters, generally rest most heavily on the kinship principle. Lineages, clans, phratries, and moieties each have their headmen who are responsible not only for

² R. Linton, *The Study of Man*, p. 240.

the regulation and guidance of affairs within their respective kinship groups, but who also formally represent their groups in relations vis-à-vis other kinship groups. Collectively, they form the several levels of councils that act for the tribe as a whole in public affairs. How much of the structure and functioning of primitive legal systems is built upon kinship groups has already been made clear.

On the other hand, since every community is a distinguishable territorial entity, every state, both primitive and civilized, uses the geographical unit as a basis of organization as well. The smallest such unit is the *household*. The next largest is the *camp* (among nomadic hunters and gatherers) or the *village* (among sedentary peoples). The next largest is the *band*, comprising a number of camps (among the nomads) or the *district*, comprising several villages (among the sedentes). Above these is the *tribe* or *nation*, the largest group with a common language and culture. (Actually, a tribe may incorporate alien groups, but on a subordinate basis.)

Tribes may ally on a more or less permanent basis with other tribes to form a *confederacy*. This is done usually on a voluntary basis for mutual defense or aggression, and in confederacy each tribe remains self-determining in political matters to a greater extent than it yields decisive power to the confederacy. The only real difference between an alliance and a confederacy is in the development of more enduring and explicit institutions for determination of questions of mutual concern between the tribes.

When a tribe or confederacy incorporates the victims of their conquest into a permanent state system on a subordinate basis, the political system has expanded to become an *empire*.

All these forms of territorial statehood were achieved by one or another primitive society.

The use of special associations as a principle of state organization is, on the whole, relatively weak in primitive cultures, but nevertheless quite widespread. The heads of the secret religious fraternities form the tribal council in a number of pueblos. The military fraternities of the Plains Indians performed major governmental functions, as do many of the secret societies of Africa and Melanesia. The age classes of other parts of Africa do likewise. In India castes still operate as units of government, although the modern constitution of India proscribes them.

The constitutional structure of the United States ignores the associational principle, but churches, labor unions, manufacturers' associations, and a host of other special-interest organizations have secondary political functions, of which lobbying is but one form of expression. One need only stroll the streets of Washington, taking note of the many stately

headquarters maintained by a host of organizations, to get a hint of how true this is.

So far has the kinship principle fallen into desuetude in many modern states, and especially in the United States, that favoritism on behalf of relatives, called *nepotism*, is often forbidden by law.

TYPES OF GOVERNMENT

In simple democratic societies of the order of the early New England town, the personnel of the state and government are nearly identical. This is true of the simplest primitive societies. But in complex societies with highly developed political structures serviced by special functionaries it is quite otherwise.

A variety of grossly defined labels are applied to different forms of states in terms of the preponderant power sources in the matter of control of the governmental machinery:

1. *Oligarchy* is that state whose government is controlled by a small group within the larger society. It may or may not be a dictatorship.

2. *Monarchy* vests power (in theory at least) in one man, the king.

3. *Gerontocracy* puts governmental power in the hands of the old men as a class.

4. *Democracy* retains control in the hands of a large part of the people.

5. *Theocracy* leans to supernaturalistic domination of the government by priests or other religious specialists endowed with sanctity.

Such labels must be used with caution, for they are apt to be quite misleading in that they induce us to oversimplify the pluralistic nature of the state in which a multitude of divergent interests meet and merge or clash. African monarchies have all the external appearance of absolute autocracies. But if an observer centers attention on the powers of the royal elders, he will emphasize their oligarchic nature. Yet the "voice of the people" is also so insistently heard by the rulers as to give a strong democratic tinge to the functioning of the monarchy.

There are also classifications of states based on the size and composition of the political unit. These may be ranged in an ascending scale in which each unit presupposes the existence of those below (Fig. 28-1).

The Local Community. The local community is the seedbed of all statism. In face-to-face relations in the daily round of life it is the first group beyond the family to which personal loyalty is attached. In the *esprit de corps* of the local group lies the germ of patriotism. It is the simplest unit of territorial organization known to man, and it is presumably the only territorial unit of society known to early humanity as it emerged from apehood to manhood. As we see it among the lower

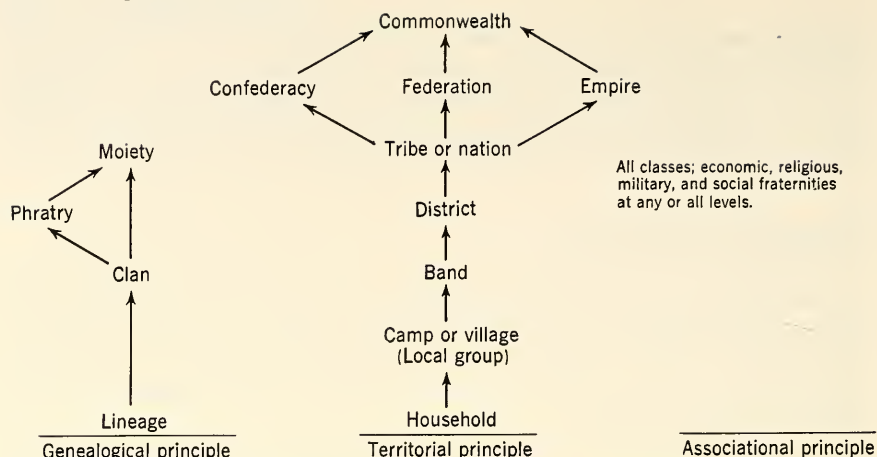


Fig. 28-1. Hierarchy of units of sociopolitical organization according to dominant principles.

contemporary tribes—the Shoshones, Eskimos, Andaman Islanders and all other Negritos, the Bushman, and Australians—the camp is autonomous and politically sufficient unto itself. It is bilaterally organized and, due to male dominance and hunting ecology, is usually virilocal. It maintains communal property claims to its recognized territory, and is nomadic *within* its defined land area. It is small and compact (20 to 100 persons) and usually holds 100 or more square miles of land.³ Because all members of the camp are usually close relatives, the Bushmen, Negritos, and Australians prescribe local group exogamy. Eskimos and Shoshones do not force exogamy on a locality basis, but anyone within three degrees of relationship is tabued as a mate. Local groups may share a common culture with other local groups within a tribe and be part of a larger society. Yet they may be so discrete that it is scarcely proper to speak of them as actually constituting a tribe.

New local communities come into being through fission. Small groups break off from parent groups and find a new territory to occupy. This may come about through increase of the population beyond the maximum sustainable with the food resources available in the traditional band territory. Or it may result from internal dissension. Or an ambitious political aspirant may draw off a group of followers when he cannot gain leadership ascendancy in his home group. These processes occur over and over, and it is likely that the peopling of the earth in prehistoric times was done more in this wise than in the wholesale migration of already established local groups.

³ Cf. Steward, *op. cit.*

When a new group splits off from the parent group it does not sever all ties with it. Its members carry the same old attitudes and habits of life. There lingers a certain amount of loyalty for the old group, although the new one has first claim on the affections of its members. Inter-marriage is maintained, as well as other forms of social intercourse. Resources of the environment permitting, the local groups get together occasionally for ceremonial purposes and visiting. Sometimes they join forces for war and defense.

The impulse for the getting together of local groups springs basically from the desire to see new faces and old acquaintances, to enjoy the social pleasures that are possible in a large gathering, to break with games, dance, and ceremony the routine of everyday grubbing. Dance and ceremony in turn function not only to satisfy the psychic need for sociability but to reinforce the appetite for it by building up the feeling of unity between communities. In the end they and the pressures of war solidify the local groups into bands: social units with political organization embracing a number but not all of the communities within the tribe.

Shoshones live through the summer months in scattered camps. Bands constitute the winter villages, which endure through the spring fertility ceremonies. Australian local groups gather for tribal initiation and fertility rites whenever the need corresponds with the accumulation of food surpluses.

Kirghiz herders gather in band villages during the winter months and spread out in local groups to find summer pasturage. Cheyenne Indians scattered in small local group camps to weather out the winter, gathered in great tribal conclaves for the early summer ceremonies, then broke up into band groupings for the remainder of the summer, finally to split into local groups again as fall arrived. Seasonal variations in food supply thus usually control the time and duration of band consolidation among the more precariously existing hunters and gatherers.

In contemporary times, and undoubtedly ever since the Neolithic way of life spread extensively over the globe, most primitive people live in settled villages rather than in mobile camps. Some use both modes of settlement according to seasonal activities and circumstance. In Professor Murdock's cross-cultural survey, only 39 (16 per cent) out of 241 societies have the camp as their form of basic community. One hundred and eighty-nine (78.4 per cent) have village or town organization, and a meager 13 live in "neighborhoods," scattered semi-isolated homesteads.⁴

Because each society, whatever its basic type of community, also organizes its people in terms of kinship, the village (and camp) may be

⁴ G. P. Murdock, *Social Structure*, p. 80.

strongly colored by kinship practices. When the members of a given camp or village must customarily marry within their own local group, all members of the community are obviously relatives. Such a local group is thus coevally a kindred. To provide us with a word that will conveniently identify the kindred-local group, Murdock proposes anthropological usage of the word *deme*, after the ancient Greek. The *deme*, as a form of sociopolitical organization, is an endogamous community consisting of a bilateral kindred.

Unilateral descent, except in the Middle East, requires exogamy. Nevertheless, we find cultures in which villages may "belong" to certain lineages or clans. This means, if virilocal residence prevails, that the men of the clan stay in their own community and bring their wives in from the outside. The community is not then made up exclusively of kinsmen, as is the *deme*, but the bulk of the population do belong to a single kinship group. Such a community constitutes a *localized* lineage or clan.

In the case of the *deme* and unilateral kinship community, the heads of the kinship groups are simultaneously heads of government. Territorial units are not distinguishable from kinship units and the solidarity of the political state on the local level is most firm.

Nomadism tends to limit expansion of political organization. In six out of every seven nomadic primitive societies, the individual camp is self-governing with little or no larger state organization above it.

Tribes with sedentary villages, on the other hand, show a definite tendency to expand the scope of the state to the point that the local communities (villages) become subordinate parts of a larger district or tribal political organization. Approximately two-thirds of the sedentary tribes have created political superstructures above the village level.⁵ All civilizations quickly do so. Cultural advance definitely leads to an expansion in the scope of political organization. Yet the local community never disappears. It retains autonomy in the determination and administration of many of its affairs; it surrenders no more than a part of its sovereignty to the higher political structure.

THE NATION

A consolidation of local communities and bands into a permanent political organization, which embraces the whole tribe, produces the *nation*. The Cheyenne Indians with tribal council and tribal chiefs represent this stage.⁶ A tribe may or may not be organized as a nation. The Cheyennes were, but the Comanches were not; nor was the so-called "Dakota

⁵ Murdock, *op. cit.*, p. 85.

⁶ Cf. K. N. Llewellyn and E. A. Hoebel, *The Cheyenne Way*, Chaps. 7 and 8.

Nation" which consisted of no more than a number of closely related tribes.

Confederacy. The union of two or more nations for purposes of war and peace produces a confederacy. Each, however, keeps a larger measure of its own identity and autonomy. Confederacy involves more than mere alliance, which is at best a temporary makeshift (as our recent wartime love match with Russia too potently demonstrates). It calls for a relatively permanent and moderately subtle wedding of interests and organization among the several nations involved. Yet confederacy as a political device can never achieve enduring stability, since by its nature the component states reserve to themselves the right to place their particularistic interests above those of the united body. The thirteen American colonies quickly realized the fallibility of confederacy. After the years of confederation they had the wisdom to move on to federation in the greatest single act of political creation in all history. The inherent weaknesses of confederacy were the fatal defects of the erstwhile League of Nations, and also constitute the crippling features of the present United Nations.

For all its shortcomings, confederacy is a social scheme that is not easily attained. Each nation is jealous of its own uniqueness. Voluntary sacrifice of self-determination comes hard. Outside of North America confederacy among primitive nations was rare indeed. Even on our continent few tribes attained it. But the Iroquois and the Southeastern Indians of the United States showed how it could be done even by illiterate savages, and confederacies were not unknown in Central and South America.

Empire. Consolidation of nations or tribes into large units of political organization through conquest by a dominant nation produces empire. In its most elemental form it is enough if even a single conquered tribe is brought under the continued controlling power of the conquerors. In its more usual and elaborate form empire involves a cluster of subjugated tribes drawn into the state system of the conquerors. Most empires are of this order, for once a victorious nation masters the technique of holding its victims in permanent subjugation and has tasted the fruits of its yield, it strives to extend its sway in an ever-increasing scope.

Empire is found only on the higher levels of primitive culture. The conquerors must have a well-knit political organization to give coordination to their military adventures, and above all they must have enough political centralization to be able to set up and maintain an administrative system over the conquered peoples. Further, the cultures of one or both of the tribes must have attained at least the gardening stage of economy so that the labor of the subject peoples can be utilized to produce food or handicraft surpluses for appropriation by the master nation. Tribute is the goal of empire.

Empire in the long run tends to be self-dissolving. It rests on force and may always be destroyed by force. Revolt is an ever-present possibility. Other power states eye rival empires as juicy plums. If only they can displace the ruling group within the empire structure, the fruits of the exploitative organization are theirs for the harvesting. Aside from destruction from without, however, social processes work continuously within the empire to transform it. The end result is either a stabilized conquest state with caste organization or a commonwealth. Primitive peoples ordinarily arrive at the first solution. Modern empires tend toward the second.

In Africa, given sufficient time, as also in ancient India, the empire fuses into a higher type of tribal organization in which the conquerors become a ruling caste and the various subjugated tribes lower castes or social classes. An example of this type of African state was given in the chapter on class and caste.

Caste and conquest states are exploitative states. The Marxist definition of the state as a system of politico-economic domination by one class for the exploitation of another aptly applies to them. But the Marxist desire to make of this a universal definition of the state leads to false conclusions from false premises. The state on lower levels of primitive society is not of this order. Nor are the states on the higher levels of social organization necessarily so. The Leninist dictum that in a classless society the state will wither away and die may be true of the state defined solely in terms of class exploitation. But when we see the state as a social organization whose function is to determine general social policy for the social whole, an organization equipped with privileged power to enforce social policy, it will be recognized as an inevitable and continuing feature of the social life of men.

The state, which is a cultural creation to meet general social needs through government, is always in danger of having the government captured by special-interest groups who undertake to usurp the power of the state to their own limited ends and interests. Because the instrument of the state is socially endowed with physical force, the state in larger societies is easily susceptible to tyranny. There is less danger of this in small primitive societies where interests are quite homogeneous and the range of material culture is limited.

It is an eternal paradox of society and a basic sociological principle that increasing complexity of culture requires delegation of authority and specialized functions to professional or semiprofessional personnel, while on the other hand the specialized functionaries are always driven by self-interest to think and act as though the job exists for them, not they for the job. In government the struggle endures through the ages. The problem is how to give the governors sufficient power to do what needs to

be done, while at the same time limiting their urge to abuse the power that must be put at their disposal. Government is a dynamic process in which no solution can be permanent. The price of liberty is eternal vigilance.

"The final justification of all government rests on the need for maintaining the superiority of the general interest without sapping the social initiative of the community."⁷

THE HEADMAN

The earliest and most primitive type of governmental leader is not the chieftain but the headman. Notions about patriarchal tyrants among lower primitives have little reality.⁸ Of course, there is no way of knowing for certain just how Stone Age man disported himself, but at least we can observe the general characteristics of the primitive hunters that have survived into the modern age.

"The headman of a Chiricahua [Apache] local group can be thought

⁷ F. M. Marx, "Administrative Ethics and the Rule of Law" (mss.).

⁸ Promulgated a half-century ago by J. J. Atkinson in *Primal Law*, made popular by H. G. Wells's *The Outline of History*, utilized by S. Freud as the foundation for his unfortunate essay into anthropology, *Totem and Tabu*, and still clung to by psychoanalysts such as Theodore Reik in his *Ritual: Psychoanalytic Studies*.



Fig. 28-2. A Bushman headman. (Peabody Museum, Harvard University.)

of as a natural-born leader, one who earns the confidence and support of his neighbors. His influence is considerable, but it is of an informal nature."⁹

The leader is expected to speak on all important occasions. Among the Yavapai of Arizona, the headman was moderate in speech, stopped quarrels, and knew the best camp sites. People followed him because his personality won their confidence. Of the Comanche headmen, That's It sagely observed, "I hardly know how to tell about them; they never had much to do except to hold the band together."¹⁰ That's It put his finger on it. The headman in the primitive world rarely has explicit authority; his functions are so subtle that they defy easy description. Yet he is the focal point of the local group.

As Harrasser notes among the Central Australians, the "chief is at most *prima inter pares* with few exceptions among the Dieri and in West Victoria."¹¹ Similar evidence comes from the Shoshones and the Eskimos. The Shoshone headman is called *tegwani*, which in its fullest sense means "good talk thrown out to the people." In western Alaska the headmen are those who "by their extended acquaintance with the traditions, customs and rites connected with the festivals, as well as being possessed of an unusual degree of common sense, are deferred to and act as chief advisers of the community."¹²

The simplest primitive societies are always democracies; rarely does dictatorial political leadership crop up among savages.

CHIEFTAINS

Complexity of social life sharpens the need for leadership and the delegation of responsibility. Societies that are developed enough to have a tribal state always possess chiefs. A chief is differentiated from the headman merely by degree of authority and social distinction. His position may or may not be inherited. His functions and powers are variable among different peoples.

In North America it was unusual for a chief to have strong power. Great care was taken in many tribes to separate the offices of peace chiefs and war chiefs. Peace chiefs were the civil governors. Usually they were

⁹ M. E. Opler, *An Apache Life-way*, pp. 233-234.

¹⁰ E. A. Hoebel, *The Political Organization and Law-ways of the Comanche Indians* (American Anthropological Association, Memoir 54: Contributions from the Laboratory of Anthropology, 4, 1940), p. 18.

¹¹ A. Harrasser, *Die Rechtsverletzung bei den australischen Eingeborenen Bei-lageheft zur vergleichende Rechtswissenschaft*, Vol. 50, 1936).

¹² E. W. Nelson, *The Eskimos about Bering Strait* (Bureau of American Ethnology, Annual Report 18, 1899), p. 304.

band or clan headmen elevated to the status of membership in the tribal council. They supervised internal tribal relations and had judicial powers over a few classes of crime. Most legal offenses, however, remained in the area of private wrongs to be settled by the parties concerned. Sometimes, as in the case of the Cheyennes, Omahas, and Iroquois, the civil chiefs were explicitly chosen for limited tenure. War chiefs were the heads of military fraternities, or a war chief could be any man who had an outstanding war record. Naturally, such war chiefs could make their opinion felt in the tribe, but they had very limited constitutional powers in the operation of the camp in peacetime. The most militaristic American Indians were astute enough to realize that military dictatorship is the greatest of all threats to the democratic way of life.

The main social functions of chiefs, it may seem strange to contemplate, need not be political. Yet there is really nothing strange about this, if we consider the Queen of England. Her political functions have atrophied, but her symbolic and ceremonial functions evoke a stir of emotion in British hearts the world over.

In the primitive world the Trobriand chief enjoys high status and many privileges. Tribute must be paid him, but he utilizes it mostly to put on ceremonial feasts on behalf of his people. His functions are more



Fig. 28-3. Social distinction manifest in the person of a Micronesian chief. (*Peabody Museum, Harvard University.*)

to serve as a mainspring of ceremonial activity than as political officer.

This is true in greater or less degree for all of Oceania (even in tribes where chiefs stem from conquerors), for as Forde observes,

The origin and development of chieftainship in Melanesia is by no means clear, but everywhere the chiefs claim the same essential rights and powers. They are nearly always real or alleged immigrants who make similar claims to sanctity, superiority and to the control of valuable ritual.

The chiefs of the Sa'a people on the island of Mala, Solomon Islands, are aliens who established and maintained their position by arrogance and determination, yet they are regarded not as political directors but as feast givers and the controllers of certain ceremonies. "By the splendor of their feasts they enhance the prestige of their district and win the approval of the commoners who make gifts of food for yet more feasts."¹³

Exactly the same could be said of the Indians of the Northwest Coast of North America with their potlatching chiefs.

HEREDITARY MONARCHIES

Kingship results from the development of the hereditary tendency into a hereditary principle. Its main function is to introduce stability into the administration of government. Strong clans make for intratribal strife. The law of blood revenge must be superseded by a stronger law of the whole society. This can conveniently be the king's law and the king's peace. But the power of paramount chieftains is in itself a luscious prize for power-hungry men. With bloody intrigue and with turmoil in their struggles to project themselves into chieftainship they can rend the peace of the tribe. Clearly defined hereditary succession puts a check on such social abscesses. Yet the oftentimes fatal defect of the hereditary principle is that the heir to succession may have no aptitude for the job. The king may be a feeble weakling or, worse still, a dangerous egomaniac. In the one event, the state may fail to function effectively in times of crisis. In the other, tyranny supplants social justice, and men suffer under corruption.

Kingship is so common among advanced primitive societies that we must conclude that the need for centralized control outweighs the urge for democratic freedom at this level of social development. The resurgence of democracy comes later. But where democracy fails, the need for

¹³ C. D. Forde, *Habitat, Economy, and Society*, pp. 182-183. See C. S. Ford, "The Role of a Fijian Chief" (*American Sociological Review*, Vol. 3, 1938), pp. 542-550; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 226-233, for a vivid firsthand account of a Polynesian chief in action.

centralization produces dictatorship or fitful moves for the restoration of monarchy.

The hereditary principle is no thought-out device. It develops quite naturally and without conscious awareness. We can see this among those American Indian tribes who explicitly deny hereditary succession to chieftainship. In spite of the fact that any good man may become a chief, records show again and again that a chief is succeeded by one of his sons or maternal nephews. Chiefship runs in family or *susu* lines. This arises from the fact that the training and high example set by the senior relative give chiefly qualities to their boys.

People become habituated to expectancy of leadership from such lines. The boys assume that people will respond to their superior leadership—and they do. Eventually, the tendency may become a prescription.

In Polynesia and Africa primogeniture often fixes succession upon the eldest son. Yet most tribes maintain functional flexibility by leaving succession open to selection from among the chiefs' heirs by the royal council or the matriarch (in Ashanti, the Queen Mother; among the Iroquois, the oldest woman in the lineage). This is a sound device except as it leads to palace feuds between the parties of the heirs who rely on the *coup d'état* to circumvent council deliberations. Civil war and temporary anarchy are the usual concomitants of the death of a monarch in many a Bantu kingdom. Indeed, as a precaution against this sort of thing the death of the king is often kept secret until his successor is chosen and everything is ready for the coronation.

SACERDOTAL CHIEFS AND KINGS

The skeins of religion and politics are composed of separate threads. They are woven into the tapestry that makes the web of society, sometimes carefully separated, each forming its own design, sometimes intertwined, joining church and state in one pattern. The warrior's sword and the magician's wand are different artifacts. A man may wield one or the other, but if he is skilled enough and if his culture permits, he may seize the sword in his right hand and the wand in his left. Then, indeed, he becomes a power to cope with. The essential doctrine of separation of church and state in American democratic tradition is a needful defensive reaction to that awful power.

Shamans and priests are specialists in controlling the action of the supernatural; headmen, chiefs, and kings are specialists in controlling the actions of men. But the actions of men must be controlled in their relations to the supernatural; the priest always has temporal influence. The politician uses religious means for political purposes when he is able to control religious power; the priest in turn is apt to use political means

to attain religious ends when he has the techniques to do so. When either one has specialized his own peculiar techniques to a high degree and religious and political instruments are clearly developed, it sometimes occurs in the primitive world, as it so often does in the modern world, that rivalry and hostility between church and state are sharp. Among primitive men, however, a working agreement between the two often exists—as the Trobriand chief employs his hereditary sorcerer to destroy upstarts,¹⁴ and the Yokuts-Mono chiefs in California connive with medicine men to mulct the guileless public.¹⁵ On the other hand, use of supernatural power for self-advantage through black magic is almost universally treated as a deadly crime if carried too far.

In general, supernaturalism is so ubiquitous in the primitive world that it colors all government to a greater or lesser degree. Political officers almost invariably possess some magic power or religious sanctity. War making, legislation, and judicial procedure inevitably involve religious ritual.

In highly organized gardening societies of sedentary peoples dependent on fixed crops, the chief is usually the high priest of the rain, fertility, and garden cults. As he is the supervisor of politico-legal relations, so is he also responsible for the economic well-being and religious security of his folk. If his society is that of ancestor worshipers, as is usually the case in Africa and Oceania, he is also the ancestral viceroy on earth—his people's high-

¹⁴ B. Malinowski, *Crime and Custom in Savage Society*, pp. 85-86, 92-93.

¹⁵ A. H. Gayton, "Yokuts-Mono Chiefs and Shamans" (*University of California Publications in American Archaeology and Ethnology*, Vol. 24, 1930), pp. 361-420.



Fig. 28-4. An African monarch with his council of elders. Bamum tribe, West Africa. (Peabody Museum, Harvard University.)

est link to the ancestral spirits. He is himself a direct descendant of the gods and has godhood in him. In Africa, again and again, he symbolizes the tribal soul: a soul that must be hale and vigorous, else the tribe wanes and dies. Hence, the fate of the king who becomes feeble or ill is believed to be the poison cup or strangulation by his chief councilors.¹⁶ It is no unalloyed privilege to be a ruler. Eminence entails responsibility.

The extreme sacredness of the god-king limits his activities. In Tonga (Polynesia) the *tuithonga* may not walk abroad, for where he places his foot, that earth becomes tabu.

THE TALKING CHIEF

"A White House spokesman announced today. . . ." The device of presidents is a possession of primitive chiefs and kings the world over. The Ashanti king or the paramount chief of a district rarely speaks in public. To do so is bad etiquette and policy on his part. He has his *okeyame* to serve as his mouthpiece. Most African kings have a court mouthpiece. In Samoa each chief has his Talking Chief, who recites his lord's genealogy before every meeting of the native "parliament." He speaks his chief's mind in debate. Kwakiutl and other Northwest Coast chieftains have their speakers at potlatches to extol the ancestry and virtues of their masters. Every Plains Indian peace chief had his crier, who announced decisions to the camp at large; his "loudspeaker," the Cheyenne interpreter, High Forehead, always called him.

The reason for these spokesmen is subtle but sound. When chieftains rise above the level of headmen their power increases. He who wields powers of decision and enforcement must not be too familiar to the multitude. Some good men can maintain influence and fraternity simultaneously, but they are rare. It is a safer and surer technique to let a minion undertake the vulgar task of shouting to the masses.

THE COUNCIL

The one universal instrument of government is the council. No tribe or nation does without it. No man can govern alone, nor is he permitted to. Monarchy, if taken literally, is a misnomer. Every king or chief operates within the network of his advisers and cronies. Some are helplessly enmeshed in it.

In small primitive bands and tribes the council is a democratic gathering of adult males. In gerontocratic Australia participation is limited to the elders. Elsewhere, it is mostly open to all males. Among American

¹⁶ Cf. J. G. Frazer, *The Golden Bough*, Chap. 24, "The Killing of the Divine King."

Indians decision of the council had to be unanimous; one stubborn hold-out could block action. Still there were neat devices for attaining unanimity. Tribal councils commonly consisted of all the band headmen. Among the Aztecs, for a special example, every family sent its headman to a clan council. Each clan council had a clan headman, a war chief, and a speaker. The speakers of the twenty clans formed the tribal, or national, council, which worked with the king and his executive officer, the Snake Woman (who was no woman, but a man).

Among the great African monarchies the king bears the superficial appearance of an absolute autocrat. Yet he can rarely act without full approval of the council, and this is not forthcoming until the royal elders have sounded out tribal public opinion. Kings who abuse their power can generally be deposed or, in the old days, they could be destroyed.

Monarchy, like every other social relation, rests on reciprocity. If the exalted ruler receives great social privilege, he must give service to the people in return. Some kings and dictators may ignore this precept, but it is difficult for them successfully to ignore for long the principle voiced in the Balinese proverb, "The ruler owes his might to the people."

NONPOLITICAL ASSOCIATIONS IN GOVERNMENT

It is an error to think of government solely in terms of the organs explicitly designed for governmental purposes. All government is pluralistic, and various extrastate organizations play their parts in determining and executing political policy.

The author for some years belonged to a small-town volunteer fire company. It is a closed fraternity, which elects its members by secret vote. It has all the trappings of a lodge: sworn secrecy, uniforms with gold buttons, rituals, dances, and ceremonial feasting. It also puts out fires as the occasion demands. This firemanic fraternity is a private association, a true men's club. Yet it is an official branch of government under the laws of the State of New York. The costs of its fire-fighting equipment and meeting rooms are met by public taxation. It is regulated by public law and is controlled by publicly elected fire commissioners. It remains a club, and yet is an organ of government, just as the Plains Indian military fraternities, which have already been discussed in their social aspects in Chapter 23. Fraternity, feasting, dancing, and social enjoyment were the primary activities of such men's clubs, but they also took on police, judicial, and legislative powers when the need arose.¹⁷ The tribal councils constitutionally possessed all judicial and legislative powers covering crimi-

¹⁷ R. H. Lowie, *Primitive Society*, p. 415; *The Origin of the State*, pp. 94-107; "Property Rights and Coercive Powers of the Plains Indian Military Societies" (*Journal of Legal and Political Sociology*, Vol. 1, 1943), pp. 59-71.

nal activity. However, the council chiefs were peace chiefs not given to coercive action. When coercive restraint or punishment was needed, they were not suited to the task. They were "fathers" to all the tribe, and Indian fathers do not punish their children. What was more natural than that the extragovernmental societies of warriors should take over policing the hunt, the rice harvest, the great tribal ceremonials of the sun dance? This they did with vigor and dispatch. In later years, as the Plains tribes began to crumble before the onslaught of the white men, the Cheyenne military societies assumed more and more governmental power as crisis piled on crisis. But to no avail; they were overwhelmed.

In Africa, as we have already seen, various secret societies among certain West Sudanese tribes imposed peace, collected debts on behalf of their members, and, in the case of the Egbo society, punished wrongs.

In Melanesia the numerous men's secret societies also directly and indirectly determine policy and operate as law-enforcing agencies.

Plains Indian military societies were not secret, and as a result their role in government was essentially democratic. It is quite otherwise with the exclusive secret orders of Africa and Melanesia. They are more akin to the Ku Klux Klan, Christian Front, and Columbians, who spring up in our midst to usurp the functions of the state and to corrupt democracy. That these extralegal bodies can sporadically attain a measure of success is testimony to the Hydra-headed nature of government in society.

POLITICAL ORGANIZATION AMONG THE TSWANA

A highly developed primitive society weaves genealogical, geographical, and associational units together into a multicelled state system. Professor Schapera's lucid report on the Tswana, a Negro nation of Northern Rhodesia in South Africa, provides us with one of the finest examples of how this is done.¹⁸ It forms the basis for this summary.

The Tswana or Bechuana constitute an ethnologically identifiable group of tribes. Each tribe is a politically independent unit, although the more newly formed tribes recognize the seniority of the tribes from which they broke off. Tribal populations exceed 100,000.

The integrating focus of the tribe is in the person and office of the chief, who is not only the supreme ruler but also "the visible symbol of its cohesion and solidarity." People may leave the tribe of their birth, and tribal citizenship is expressed by allegiance to a particular chief. Each Tswana tribe has a capital town (ranging in population from 600 to 25,000) and a number of smaller outlying villages.

Within the village or town the households (which consist of one or

¹⁸ I. Schapera, *A Handbook of Tswana Law and Custom*, pp. 1-34, 53-124.

more conjugal families) are clustered to form the spatially distinguished family group. Closely related family groups live in a well-defined administrative unit, called a *ward*. All the wards together make up the tribe, except that in two of the larger tribes the wards are grouped in sections.

A small hamlet may contain no more than one household. A small village may consist of a single family group. A larger village may have but one ward. A village, if large enough, may, however, embrace several family groups and wards. Each of these groups is a kinship-territorial-governmental unit of social structure.

The leader of the household is the husband and father; for the family group the leader is the senior male descendant of the common paternal grandfather whose name the group bears. His position is hereditary and ascribed. He directs the group's activities and keeps the peace within his flock. In important matters he acts on consultation with a family-group council of all its adult males.

The headman of a ward holds his position by right of hereditary descent as the senior son of the preceding headman. He is not appointed by the chief except upon formation of a new ward. He does, however, act as his ward's representative to the chief, and he is responsible for the orderly conduct of his people and the execution of the chief's commands. He collects tribute for the chief and holds judicial authority in minor cases involving two family groups within his jurisdiction. He is also the leader of the men of his ward in their common age class.

The headman must act in consultation with a ward council made up of the senior members of his own family group and the leaders of the other family groups in his ward. If guilty of malfeasance in office, his own council will reprimand him, or complain to the chief, who may then try to punish him through the Royal Court. Occasionally, the ward headman convenes all the adult males of the ward in a general folkmoet for review of problems of wide concern. The headman carries many burdens of responsibility for which he receives little material compensation but great prestige and respect—providing he does his job well.

Each village, in turn, has its headman. If the village and ward are one, then the ward headman and village headman are one and the same. Should there be two or more wards, the headman of the senior ward is the village head. His duties are similar to those of the ward headman, except that they are town-wide in scope.

In those tribes that have districts, village organization remains the same as that described above, but the district will have as a special representative to the capital the headman of one of its more important indigenous villages (some outlying villages will consist of immigrant aliens).

This now brings us to the central tribal government organized around the chief. A chief is chief through primogeniture. *Kgosi ke kgosi ka a*

tsetswe, a chief is chief because he is born to it. In succession, the direct line precedes all collateral lines; i.e., the sons of the chief succeed, but his brothers and their sons cannot, although a brother of a dead king may serve as regent during the minority of the heir. If a chief dies with no male issue, the chieftainship passes to the next senior brother of the chief.

Functionally, the Tswana chief "is at once ruler, judge, maker and guardian of the law, repository of wealth, dispenser of gifts, leader in war, priest and magician of the people." He and his family take precedence in all things and receive high honors. Failure to obey his orders or to show him respect are criminal offenses. He is sustained by a royal coterie and with tribute.

In return much is expected of him. His time is his people's. He must keep himself well-informed of tribal affairs, be accessible to all who have complaints, organize and direct the army, sit as chief justice, preside over the tribal council, perform the major religious rituals, and above all be generous, redistributing most of the tribute that comes to him.

The male relatives of the chief form a nobility, a kind of House of Lords, with whom he must remain in close consultation. To maintain effective democratic control, the chief has an informally constituted body of confidential advisors (a "cabinet") drawn from among the important men of the tribe on whom he feels he can rely; they are usually, but by no means always, paternal relatives.

The government also includes a formal tribal council of all the ward headmen, who meet in secret, executive session whenever convened by the chief.

Affairs of great tribal import, although they are first taken up by the two preceding groups of advisors, cannot become official policy until they have been discussed and approved in open tribal assembly. To this all the headmen come *and* all adult men who want to make it their business.

Thus, although a chief is chief because he is born to it, the Tswana have an even more fundamental proverb: *Kgosi ke kgosi ka morafe*, a chief is chief by grace of his tribe. The constitution of the state is such that he is subject to representative checks and balances. A self-willed chief does not last long.

There is yet another arm of the Tswana state to be mentioned. All Tswana men are initiated into age classes at puberty. These have important congeniality functions to perform, but they are equally important as units of political organization. An age class cuts right across the local segments of the tribe and counteracts the parochialism that inherently exerts a neutralizing effect on national integration. Each age class (which numbers from fifty to several hundred boys or men, depending on the size of the tribe) is headed by a commander who is always a member

of the royal family. In war, the age classes constitute regiments in the tribal army. The men of a given ward form "companies" within the regiment under the leadership of a son or close relative of their ward headman. In times of peace the age classes serve as work brigades to perform any public service or job of construction that the chief deems necessary.

Women's age classes also exist and are organized along the same lines as the men's. In the sphere of women's work they also perform public services, though of a lighter nature.

The Tswana system exemplifies how the state, as a political system in an advanced primitive society, weaves and balances kinship, territorial, and associational groupings into a harmonious whole. It shows how the functional prerequisite of allocation of authority to responsible leaders is checked and balanced with concomitant reliance on organized group consultation, through the provision of councils on each level of administrative structure, with a final check imposed through general assemblies at each level for consideration of all major or crucial decisions. Tswana political organization has the essential elements of monarchy, democracy, oligarchy, theocracy, and gerontocracy. It is each of these and all. It has no need for elective procedures and spares itself a good deal of trouble and uncertainty thereby, because internal social mobility is limited, and in this type of society the hereditary principle works well enough.

SUMMARY

Political organization is characteristic of every society. It consists of the network of customs that regulate the relations between groups within the society and between one society and others. That part of culture that is recognized as political organization is what constitutes the state. Government consists of the specialized personnel who manage the affairs of the state, along with the ways in which they behave as governmental officials.

The units of political organization may be genealogical, territorial, or associational. The genealogical units, such as the family, kindred, lineage, clan, phratry, moiety, or deme, are usually subdivisions of territorial units. These range in scope from local group, band, village, district, and tribe, up to confederacy, empire, and federation, or commonwealth.

Government, from the most primitive to the most civilized, includes the council in one form or another. Very simple primitive societies vest leadership in headmen rather than chiefs. All adult males participate directly in decision making. Elemental primitive societies are essential democracies. Chiefship is characteristic of the more developed primitive societies. Kingship exists in those in which chiefship has become hereditary. The chief or king is often the functioning symbol of the collective existence of the society; hence his activities may be largely ritual and

ceremonial. He is both priest or god and political head: the divine king.

The state is always multidimensional. It is made up of diverse elements. So governments can also consist of a variety of agencies that have non-governmental aspects. Thus kinship groups and associations that exist primarily for other purposes may perform governmental functions, and so exist as an integral part of the state system.

SELECTED READINGS

- Evans-Pritchard, E. E., and M. Fortes (eds.): *African Political Systems*. A symposium of excellent studies of political structure in a number of African tribes.
- Fallers, L. A.: *Bantu Bureaucracy*. Centers on the problem of implicit conflict between kinship and state loyalties and values in an East African tribe.
- Lowie, R. H.: *The Origin of the State*. A stimulating, pioneer study of the processes of state development among primitive peoples.
- Rattray, R. S.: *Ashanti Law and Constitution*. A most valuable study of the historical development of the great, federated monarchy of the Ashanti of the Gold Coast of Africa.
- Schapera, I.: *Government and Politics in Tribal Society*. A comparative study of three South African tribal systems.
- Southall, A. W.: *Alur Society*. Subtitled "A Study in the Processes and Types of Domination," this book analyzes the structure of a primitive political state embracing a multiple number of tribes.

CHAPTER 29. War—The Deadly Issue

UNFORTUNATELY for mankind, war is one of the great social institutions. Techniques of destroying fellow men, their homes, and goods have concerned men from the beginning of human history. Indeed, a large part of the history of material culture and social organization has been the history of the development of lethal weapons and their application to human beings.

War may be usefully studied in four aspects: (1) the techniques of warfare, (2) the motivations underlying war, (3) the functions of war relative to the whole culture, and (4) the consequences of war. Each of these will be treated in turn.

By war is meant organized assault by one social group upon another with the intent to further the interests of the one group at the expense of the other through willful destruction of life and goods. War expresses the apotheosis of self-interest.

All kinds of fighting have something in common with war, as do all forms of social struggle. Nevertheless, individual brawls are not war; nor are sporting bouts, even though people may be killed and goods destroyed. Feud, on the other hand, is a kind of war—internecine war—as is civil war within a society.

REGULATED COMBAT

A number of primitive peoples engage in warfare by means of regulated or expiatory combat. This is common among the Australian aborigines, for whom the *makarata* of the Murngin tribe, as described by Warner, is a nice example:

When a clan has had a member hurt or killed, and when sufficient time has elapsed for their emotions to calm, the men send a message to their enemies saying they are ready for a *makarata*. The other side usually agrees to enter into this peace-making ceremony although there is always suspicion of

treachery. The injured group always sends the invitation, and the other must wait for them to decide when they wish to have it. Very frequently *makarata* are held after some of the totemic ceremonies have taken place, since it is at that time most of the clans will be present. When the warriors of the injured clan or clans arrive on the dueling ground they are covered with white clay. They dance in, singing a song which is descriptive of the water of their totemic well. The other side has also painted itself. The two sides stand a little more than spear throwing distance apart, and each is so situated that it has a mangrove jungle back of it for protection in case the *makarata* becomes a real fight, and it is necessary to take cover. The clan which considers itself injured performs the dance connected with its chief totem. It is of the *garma* variety, or nonsacred form. The Waruweri clan, for instance, would dance the *garawark* (mythological fish) totemic dance, or the Djirin clan would perform its shark dance. The challenging group dances over to the people who have inflicted an injury upon it and stops, and without further ceremony walks back to its own side. After the men have reformed their ranks, their opponents dance toward them, using the latter's totemic dance for this military ritual. They return to their own side and reform their line to make ready for the actual duel.

The men who are supposed to have "pushed" the killers then start running in a zigzag manner in the middle of the field, while they face their opponents. They are accompanied by two close relatives who are also near kin of the other side. The function of the latter runners is to prevent spears from being thrown with too deadly an intent from the aggrieved clan for fear of hitting their friends who are running with the foe and to help knock down spears which might hit the actual runners. When the "pushers" run they are made a target for spears whose stone heads have been removed. Every member of the clan or clans which feels itself injured throws at least once at the men who are running before them. When an individual's turn to throw arrives, he advances from the group and moves toward the runners. He continues throwing spears if he feels very strongly about the matter until he has chased the runners into the jungle. This is repeated by the more indignant members of the offended clan three or four times. Finally, when their emotions have subsided to a considerable extent, one of the older men of the group says that they have had enough and the spear throwing stops. While the spearmen are still active the injured clan curses the members of the other group; the offending group cannot reply, for this is supposed to add additional insult. They must run and say nothing.

After the "pushers" have been chased and thrown at, the actual killers run. The spear head is not removed from the shaft; the throwers continue hurling their spears at them, at first as a group and finally as individuals, until they have exhausted their emotions. While all this is taking place the old men of both sides walk back and forth from one group to the other, telling the throwers to be careful and not kill or hurt anyone. The offending clan's old men ask the younger men to be quiet and not become angry, and when they hear insults thrown at them not to reply or throw spears since they are in the

wrong. When the old men of the injured clan feel that they have sated their anger as a group they call out to the young men to stop, and each man then throws singly at the killers. He may throw as long as he pleases.

When this has been completed the whole group dances up to the other, and one of the latter jabs a spear through the thigh of the killer. If this happens it means that no further attempt will be made to avenge the killing of one of their members. The killers can feel free to go into the country of their enemies and not be injured. If only a slight wound is made they know that they are not forgiven and that this is only a temporary truce. Sometimes no wound is made at all. This acts as a direct statement of the intention of the offended clan to wreak vengeance on the other side.

After the wound has been made the two sides dance together as one group to prove their feeling of solidarity and to express ritually that they are not openly warring groups, but one people. They do the usual water dance.¹

Among early American Indians quite similar practices occurred in California and in the Northern Plains. In prearranged fights among the Maidu of California both sides lined up out of arrow range, women and children behind the chiefs of both sides standing together on a knoll to watch the fun. When all was ready, the young men of the "defendants" advanced within range, unarmed. A volley of arrows was released against them. But because the men had been trained as artful dodgers since boyhood, no one would be hit. While they retired to get their weapons, the children of the attackers ran out to pick up the arrows for reuse. Next their fighters advanced to be shot at. So it went for hours, until at last some tired leaper was struck. At this, his side, defeated, broke and ran. The victors chased them with yells of triumph. Those who were caught were pummeled. Then it was over. Everyone returned to the battlefield. The women brought forth food, and both sides together enjoyed a peace feast—or was it a picnic? The victors paid compensation to the losers for having wounded their man.

Somewhat more serious but hardly more dangerous were the early fights on the Northern Plains. When a group of Cree joined with the Blackfoot to make war on the Shoshones, about 1725, they spent a few days in speeches, feasting, and dancing before marching off to meet the foe. The Shoshones were ready for them. According to the account of Sankamappee, the Cree chief,

Both parties made a great show of themselves. After some singing and dancing, they sat down on the ground and placed their large shields before them, which covered them. We did the same. . . . Theirs were all placed touching each other. . . . Our headed arrows did not go through their shields, but stuck in them; on both sides several were wounded, but none lay on the ground; and night put an end to the battle without a scalp being taken on either side,

¹ W. L. Warner, "Murngin Warfare" (*Oceania*, Vol. 1, 1931), pp. 445-447.

and in those days such was the result, unless one party was more numerous than the other.²

And this was a battle in which some 800 men took part.

Such formal combats as we have just been discussing are not real warfare. They come closer to William James's "moral equivalents of war." They release aggressions harmlessly; they provide exercise, sport, and amusement without destruction; and only mildly is there any imposition of desires by the one party on the other.

At the opposite pole are the more common assaults by ambush and assassination. Ruthless guerrilla fighting is known among all the Negritos. Among the Indians of the Northwest Coast, battles were rarely open and aboveboard. Attackers preferred to slip into a village in the early dawn to slaughter warriors in their beds and steal away their wives and children. Head-hunters of South America and the more primitive Indonesians prefer to waylay the unwary. Punan fighters of Borneo prefer to stick an enemy with a poisoned dart propelled from a blowgun in the hands of an assassin hidden beside the trail. For them, like the tribesmen of modern Iran, "war consists in pillage; they assassinate, but they do not come to blows."³

THE CRITERIA OF WAR

Such behavior is rudimentary warfare, but it hardly deserves to be called war. War is a complex institution that involves definite purpose and organized sustained assault. True war has four necessary conditions:

1. A group motive rather than merely individual ones
2. Leadership (command and direction)
3. Tactical operations (movement designed to bring the warriors to advantageous fighting positions)
4. Ability to sustain a series of assaults until the aim of the war is attained. On the highest levels of warfare, the ability to plan and carry through campaigns⁴

WEAPONS

The tactical operations of primitive warfare are many and varied. They are limited by the weapons the culture makes possible, although the same weapon can be handled in various ways. Primitive weapons fall in three

² J. B. Tyrell (ed.), *David Thompson's Narrative of His Explorations in Western America, 1784-1812*, p. 329.

³ J. de Morgan, *Feudalism in Persia*, p. 592.

⁴ H. H. Turney-High, *The Practice of Primitive War* (The University of Montana Publications in the Social Sciences, No. 2, 1942), pp. 21-22.

categories: projectile, shock, or a combination of the two. All tactics revolve around the applications of the principles of projectile and shock. A war can be fought without projectiles, but few wars can achieve their ends without shock contact.

Any weapon that is hurled at an enemy from a distance is a projectile. The most ancient of all such missiles is the simple rock heaved in the direction of an adversary. In this case, the arm of man serves as a compound projecting lever of fairly limited power.

The South American *bolo* is one development of the simple stone projectile. It consists of a number of stones each sewn into a leather pouch fastened to a thong. The loose ends of all the thongs are tied together. The whole is hurled through space after swinging it overhead like a lariat. As it whirls through the air, centrifugal force keeps the stones spread out, so that it covers a wide striking area. Although it is effective in bringing down fast-moving animals and birds, the bolo has not had wide adoption as a primitive weapon. One obvious reason is that it can be used only in open areas and by widely spaced warriors.

Throwing sticks, such as the Australian *boomerang*, constitute another type of primitive projectile, but one of limited usefulness in war. Complicated multiedged iron throwing weapons such as those used by the Azande of Africa are more deadly, to be sure, but like the boomerang they are a poor kind of projectile. They are heavy to carry and wasteful to use.

Pointed shafts of wood, hurling spears, were the true heavy artillery of early primitive man. When Stone Age man learned to tip spears with barbed points of stone, bone, or reindeer horn, he set a pattern that spread to all continents of the prehistoric world and persisted through the civilizations of the classical world into medieval times.

However, the most efficient projectile of primitive man, serving as his light artillery, was the arrow sped from an elastic bow. Invented in the Neolithic, it was tipped with chipped-stone points in a variety of shapes. When bronze and iron were later invented, these materials supplanted stone. Among the Melanesians of the South Pacific, however, elaborately carved arrow points of wood are still made for war purposes. Many primitives of South America and the Pacific area add poisons to their arrow tips to increase their deadliness.

The bow and arrow is a development originating in the more primitive dart throwers (*atlatl*) found in common use among Central Americans and Eskimos. An arrow or dart is hurled with a bone or wooden lever, which serves as an extension of the human arm. Aesthetically carved dart throwers were made by Cro-Magnon man 20,000 years ago.

Catapults were not known to any primitives, for these clumsy engines of siege war were developed by the ancients of the Mediterranean. They

served as mechanical and more powerful equivalents of the brawny, rock-heaving arm of the cave man.

Civilization's greatest projectile improvement has been, of course, the application of the expansive power of combustible materials to drive a missile through space. Primitive man anticipated it with the blowgun, the favorite weapon of the jungle tribes of South America, Southeastern United States, and Indonesia. The infantry rifle and the giant 16-inch naval rifles of our floating behemoths are nothing more than high-powered blowguns, exploding powder instead of breath.

German buzz bombs and modern rockets are further refinements of the projectile principle. An air-force bomber is the same. The plane merely sustains the projectile until over the enemy target when the bombardier releases his missile to gravity for delivery.

The function of all projectiles, called *fire weapons* in contemporary military usage, is to strike at, disable, destroy, and disorganize the enemy from a distance. They are a way of getting at him with minimum risk.

In the hands of those primitive people who prefer assassination to genuine war, the projectile is a tool to be launched from a safe ambush. In the hands of men who understand the basic principles of warfare, primitive or civilized, projectiles function merely as preliminary "softening up" of the enemy preparatory to decisive contact with shock weapons.

Shock weapons are "the crushers and piercers which are held in the hand of the assailant."⁵ They are the lethal tools of man-to-man contact. An armed body may be dispersed by projectile assault, but it is rarely destroyed by such. Smashing, close-in fighting by aggressive warriors is necessary to close the issue.

The basic shock weapon of primitive man is the war club or skull crusher. Popular fancy always pictures Stone Age man as a hairy ruffian with a big stick. Although no Paleolithic war clubs have survived for archaeological discovery, Cro-Magnon man did picture them on cave walls. Rugged wooden clubs are truly the most popular shock weapons of recent primitives. Tomahawks of hafted stone are functional brothers to them. Battle axes of the Bronze and Iron ages are descendants of the cruder clubs of the Stone Age, and the direct antecedents of the fancy battle axes and maces with which medieval knights bludgeoned each other for the glorification of chivalry. The stock of an infantryman's automatic rifle has the same function when he swings it butt-end-to in close fighting.

The other great shock weapon is the *knife* in all its myriad forms. Stone knives with puncturing points go back to Paleolithic times. The dagger and sword are merely elongated knives. Of these the dagger and short sword have always been the more effective weapons. The sword

⁵ *Ibid.*, p. 7.

has had its vogue, for the heft of so much metal in the hand gives a comforting assurance to its wielder. But the more self-confident and aggressive warrior who does not shrink from in-fighting prefers the greater efficiency of a dagger. Thus it is that to this day the combat knife is essential military equipment, while the sword has become nothing but the peacetime vanity of officers on parade.

The pike and spear have long contended with the sword and club for favor as shock weapons. Among some peoples, as North American Indians, the club and spear virtually supplanted the knife for shock purposes. The lance, like the sword, has the psychological appeal of apparently greater safety for its user, who can put a few more feet between himself and a redoubtable enemy. Yet there is a real advantage in the spear, for its very weight lends greater thrusting power. On the other hand, it is fatiguing for fast-moving troops to carry.

The bayonet, be it noted, serves either as a short sword, or, affixed to a rifle as it is supposed to be, this projectile tool converts into a good old-fashioned primitive pike. Spears ought best be used as pikes, not as javelins. When it comes to contact, a spear in the hand is worth twenty that have been thrown at the enemy.

DEFENSIVE DEVICES

Warfare is not all offensive action, even though the best defense may be offense. The truth of this military adage depends upon circumstances. However, fighters who shun such protection as may be reasonably devised are less likely to survive. Each inventive development of an offensive implement has trailed its shadow in a defensive counterpart. Military inventiveness has been a continuing race between new and better methods for killing men and effective means for nullifying their lethal effects. Wooden, wicker, and leather shields were the answers to the arrow, sword, and pike. Shields are world-wide in their distribution, although a few primitives fight without them. Modern fighters mount their shields on caterpillar tracks and call them tanks.

Body armor of slats of wood or leather was used by American Indians and Oceanic peoples, while those of Asia often employed heavily quilted suits. Only the African Negro consistently abjured the protection of any kind of armor.

When carried too far, recourse to body armor involves the sacrifice of mobility to bodily protection; or, perhaps, with the knights of the late Middle Ages the transformation of the noble warrior into a canned mannikin was due to an overelaboration of armor as a status symbol distinguishing the knight from the churl.

Helmets were at first an answer to the war club and sword. Their late revival is a response to shrapnel and the high lethality of head wounds among men who fight from trenches or foxholes.

Among primitive peoples, fixed defenses serve primarily as a hindrance to surprise attack and as a protection for the women and children. They slow down the assault of unannounced invaders long enough to enable the defense to organize itself. If the defense is purely defensive and obstinate, breastworks, palisades, and moats may enable the defenders to hold at little cost to themselves and at the same time to inflict severe damage upon the attackers. They may force the attackers to withdraw in discouragement without bringing the issue to a successful conclusion. Thus defensive works may lead to a negative victory for the defenders. But fixed defenses are deathtraps for those who are content to hide behind them when the attackers are strong and persistent, for mobility and the initiative are then in the hands of the attackers.

The simplest primitive peoples pay scant attention to fixed defenses, on the whole, for this is precluded by their nomadic lives. Especially is this true of desert and steppe hunters and collectors as well as pastoral nomads.

Quite reasonably, settled gardeners and fishers often fortify their villages. Most Melanesians and Indonesians do not, but Polynesians, especially the Maori of New Zealand, palisaded their towns, as did the Eastern Woodland Indians of North America. Extensive earthwork embankments still survive from prehistoric times, as at Fort Ancient in Ohio. Even Plains Indians staked their tipis side to side when they expected a serious enemy attack.

Of all primitive men, the Pueblo Indians reached a defensive peak when they raised their doorless, windowless stone houses upon inaccessible mesas. Pueblos became the village citadels of pacifistic gardeners.

MOTIVATIONS OF WARFARE

The ways in which people undertake the waging of war depend not only upon the tools they possess but also upon their social organization and motivations. The chief reasons for war among primitive peoples are not economic. Real or fancied grudges, the desire for revenge, extroverted antipathy, come first. Reciprocity, both positive and negative, is the basis of all social relations, and tit is returned for tat. In 1933 an old Comanche gave voice to this in the expressed desire to scalp a young anthropologist "because he looks like a German," and no one had brought old Mumseka a German scalp for the life of his grandson who had fallen in France in 1918.

"Those are the fellows we used to like to kill," said the Cheyenne, High Forehead, of the three Crow Indian guests who sat across from us in a peyote ceremony on the Tongue River in 1936.

Warner took a count of Murngin battles in Australia over a twenty-year period. Fifty out of seventy assaults sprang from a desire for revenge for a previous killing. Ten were launched because of woman stealing.⁶

Religious and magical notions probably rank next after revenge drives. All head-hunting is tied up with supernaturalism and the belief that dead men's power can be taken with their heads. Polynesian wars were frequently undertaken to obtain sacrificial victims. Ashantis and other West Africans kept prisoners for sacrifice. The bloody religion of the Aztecs called for thousands of war prisoners for human sacrifice to the gods—a fact that proved their undoing when they came to grips with stout Cortez. The Aztecs fought to take prisoners; the Spaniards fought to kill. They baptized only survivors.

The essential difference between the religious warmaking motivations of civilized and primitive men is that the latter wage war to obtain victims for sacrifice, yet they never have sought to force their beliefs on others by means of war. Perhaps nowhere have the supernatural and social prestige aspects of warmaking been so highly ritualized and elaborated as they were among the Tupinamba peoples of Brazil whose war and cannibalistic activities were satirically extolled by Montaigne four centuries ago.⁷ The Tupinamba fought not for land, nor for booty, but for prisoners who, once captured, cooperatively played out a long and grizzly drama, ending in ritual slaughter, dismemberment, and roasting for a high feast.

The seeking of status and excitement are other important motivations for war. Pueblo Indians allow no special honor to warriors, but Plains Indians made the measurement of a man his war record. Few are the tribes that do not honor the warrior. Again and again we find that a boy is not eligible for marriage until he has participated in his first raid or brought back his first head. When a Cheyenne lad, who had not been to war, attempted to woo a maiden by seizing her within his blanket, she could turn him to precipitous flight with an archly put "And how many times have you blocked the way of an enemy?" The coup-counting system of the Plains Indians required of men that they go on the warpath many times to establish and maintain their social prestige.

Outright conquest was undertaken in part by Inca, Aztec, and many

⁶ Warner, *op. cit.*, p. 457.

⁷ M. de Montaigne, *Selected Essays*, "Of Cannibals" (D. M. Frame, transl.), pp. 73-92. A. Métraux' ethnographic summary of the same people and their activities should really be read along with Montaigne. A. Métraux, "The Tupinamba," in J. H. Steward (ed.), *Handbook of South American Indians*, Vol. 3, pp. 95-133; reprinted in part in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 151-155.

African kings as a means of enhancing personal glory and power. Among peoples who esteem the military life, expeditions are sometimes launched for the sheer fun of it. Young Plains warriors were actually disappointed when older chieftains called off prospective fights through peace parleys. War can be loved by those who play it as a game and are willing to pay the croupier, Death.

In the period of disillusionment following the First World War it became the fashion to maintain that all wars spring from sordid economic greed. Self-enrichment is a mighty driving power. War can serve well as a means of depriving other peoples of access to natural resources. Or it may be used positively as an instrument of subjugation for the purposes of callous exploitation. Whether it is so used or not depends upon various factors culturally determined.

It is safe to say that among the lower primitives of recent times most wars were not fought for economic reasons. Australians, for example, cannot conceive of dispossessing another horde of its land, because of an intimate tie between the living and their ancestral spirits, who haunt the rocks and springs of their territory. Eskimos fight for grudges but not to acquire territory. Linton reported that in certain areas of Madagascar the concept of expropriating the land of defeated enemies simply does not exist.

Food gatherers and lower hunters just do not possess enough property to make booty raids worthwhile, and victors in fights among the lower nomads do not have the means to carry surplus goods with them. Hence there is little advantage in appropriating such goods as the vanquished may possess.

It is quite otherwise when peoples have reached a settled gardening stage of cultural development. Workers are capable of producing more food and goods than they must consume to live. It pays conquerors to become masters and exploiters.⁸ Thus, as we have seen in Chapter 24, slavery and caste systems develop in the form of conquest states, and war is a useful if unjust instrument of enrichment and cultural development. The capture of women for chore wives and children for slaves is an important feature of war on the higher primitive and lower civilizational levels of culture.

War has become the deadly issue of the twentieth century. It now threatens the very existence of the societies that have brought it to its high peak of destructive perfection. After all, no culture can long nourish a trait that is actively and efficiently self-destructive. But we are attempt-

⁸ Cf. J. Bram, *An Analysis of Inca Militarism*, for a concise analysis of a carefully worked out application of the use of military power for purposes of economic exploitation by an advanced primitive people.

ing just this. Like the dinosaur, who overdeveloped his bulk into extinction, we are overdeveloping war. Unlike the dinosaur, who did not know what he was doing, we do. Our poignant tragedy is that we can see where we are heading and yet seem unable to alter our course with any degree of certainty.

War and Instinct. Is man's propensity to war an instinct? Obviously warfare as such is not, for war is an elaborate cultural complex. But that it rests on certain innate tendencies of mankind is a possibility that must be seriously considered.

Antipathy toward other persons or groups is a universal characteristic of all human beings in greater or lesser degree. On the other hand, so is sympathy. The first is an emotional state of displeasure stimulated by the existence of persons whose behavior is unlike your own. It leads to rejection or withdrawal in social relations. Antagonism is an overt manifestation of antipathy producing active opposition to, or interference with, the object of antipathy. Sympathy, the sharing of emotions and interests, draws people together in common behavior. Sympathy builds social groups; antipathy sunders them.

Antipathy as an emotional state may or may not lead to pugnacity, which is an overt state of actual or threatened physical assault on the object of opposition. It is true that in most societies pugnacity is manifest by some individuals at some times. But it is also true that the forms



Fig. 29-1. Ritual expression of aggression. Alor, Indonesia. (*Cora DuBois*.)

of pugnacity are culturally shaped, the stimuli that evoke pugnacity are culturally controlled, and in a few cultures pugnacity is reduced to a minimum or entirely suppressed. A culture can build on the primeval urge to make people more or less antipathetic and pugnacious. Compare, for example, the pacifistic Shoshones and the violent Comanches. In 1600 they were culturally and racially one.

WAR AND NATURAL SELECTION

Natural selection operates among all organisms. In the competition for food and space each individual and each organic group must find adequate room and sustenance or die prematurely. In the world of lower animals the struggle is relentless, even though mitigated by mutual aid and symbiosis. Organisms best adapted to resist the onslaughts of other organisms and to exploit particular aspects of the physical environment have greater survival potentialities than others. The weeding-out process of natural selection operates between groups and on individuals within a group. The rocks are strewn with fossils of forms that have gone the way of the dodo.

Man is not exempt. He too is faced with the inexorable facts of a finite world of limited resources and space. He must struggle as any other animal for access to these two essentials for living. The thousands who will die of starvation this very year in Asia do not have to read a book to learn this bitter truth.

Man cannot escape natural selection, but he does not have to be its abject slave. He can and does modify the operation of the process.

Man has been engaged in killing his fellow men and animals through all the ages of his existence on earth. He does it either by direct assault or by denial of access to available food and space. We exterminate beasts, fish, and insects on a large scale. We wipe out whole areas of plant life to serve our needs and desires. Throughout the Middle Pleistocene the Mousterian Neandertalers dominated prehistoric Europe, but *Homo sapiens*, aided perhaps by pestilence, completely wiped out Neandertal man some 50,000 years ago. Anthropological records are replete with the total destruction of one tribe or local group by another. In our own times, the Tasmanians have disappeared under the onslaught of ruthless European settlers, and while the North American Indians as a whole are now increasing in numbers once again, numerous tribes disappeared from the face of the earth in the nineteenth century. War and pestilence were the primary agents of their extinction.

Does this mean that the destroying groups of men were superior to their victims? In terms of sheer survival, yes. Innately? Not necessarily, for culture is an extension of man's survival equipment. Human groups

equipped with cultures that bring about larger and more effective group organization, so that they can force the displacement, subjugation, or exploitation of other groups, are in the position of being superior. Many Indians, consciously aware of this after defeat, deliberately turned to the white man's way, "because it is stronger than ours."

All primitive cultures are doomed in the next hundred years or so. They cannot survive against civilization. Selection is operative, and primitive man is disappearing even as we study him.

This is not to say that all primitive *peoples* are doomed. Many such groups can and will survive by modified adaptation to the ways of civilization and incorporation into the larger society of the civilized world.

Among the societies of civilized man does war operate with positive selection? To some extent, yes, and in some circumstances, no. Rome put a complete and total end to Carthage. The means were war. Many were the lesser societies that lost their discrete existence through the power of Rome. Anglo-Saxon Britain as it existed in the tenth century was brought to an end by the Normans, although neither it nor its culture was wholly destroyed, and the Normans with their culture were fused into the new civilization of later Britain.

In opposition to the proposition that war works for the selective survival of peoples and cultures, it may be argued that superior fighters are often defeated by accident and circumstance.

This discussion is no argument for war as a necessary instrument of social selection. It merely attempts to give honest recognition to the fact that war does operate as a selective agent among societies and their cultures; it seeks to drive home that only those who win in wars of annihilation survive, whereas those who win in limited wars may dominate—at least temporarily.

If war has consequences in social selection, the case is less clear with respect to biological selection. In combat today we destroy the cream of our manhood. The selection works negatively. Selective service and preliminary training screen out many of the physically and mentally weaker men. They never make the combat team. Those who fail under fire are sent home. Only the strongest remain, gradually to be destroyed, until after prolonged fighting the whole personnel of combat units have been filled by replacements. Among the wounded there may be some positive selection. Under combat conditions, other things being equal, the physically strong and mentally clever may be the ones who survive to reproduce another day, while the weaker go under, but this is hard to measure.

Among the civilian population exposed to the ravages of war the results are uncertain. Here the mentally and physically weak and the strong are alike exposed to mass bombing and fire raids. Among those killed outright there is little selection. Among the wounded results may parallel

those of the soldiers. Starvation and pestilence, those silent servants of war, do select the constitutionally weak for extinction.

No balance sheet worthy of scientific consideration can be drawn. We do not know if war has beneficial biological results in the long run. Probably not. After all, there is no evidence that man today is physically superior to Neolithic man. Warfare over 15,000 years does not seem to have made any difference. True, modern men have double the life expectancy of Neolithic men, but that is clearly the result of medical advance, not war.

If ever war made contributions to the moral and social advance of mankind in measure outweighing its moral and social destructiveness, that day is past. War has assuredly become a luxury that modern civilization can ill afford.

The hard lesson of psychology and anthropology is that all men have their aggressions, which can be mastered only by superior authority.⁹ Each society has its system of social control to accomplish this end among its members. World society is still in the infant stage, wherein the necessary control system does not yet exist. The deadly issue of the times is: do we have the will and intelligence to master the mass antipathies and aggressions of nations and societies by enabling sympathy to triumph through creation of an authoritative world social order? By "we" is meant not just America—or America and those who stand with her—but all the major societies of mankind. Will the Western democracies and the Eastern communistic countries succeed in making of the United Nations a true world authority? Or will they keep it hamstrung with the limitations of jealous national sovereignty and competing ideologies of culture? By the first means alone can war be brought under permanent control. By continuance along the old route catastrophic disorder becomes a deadly certainty.

SUMMARY

War consists of organized assaults by bodies of armed men against the lives and goods of their enemies. War may be highly institutionalized as in regulated combat, or irregular as in guerrilla fighting—but always it has its customary patterns.

The tactics of offensive warfare consist of ways of bringing projectile or shock weapons to bear upon the enemy. Defensive tactics and devices consist of means of avoiding or neutralizing the effect of projectile and shock weapons. The basic problems of the waging of battle have remained unchanged through time.

Men fight each other for a variety of reasons: psychologically rooted hos-

⁹ R. West, *Conscience and Society*.

tility and aggression, acquisition of magical power, prestige seeking, economic self-interest. Although a logical argument may be made from the principles of natural selection to the effect that war works to improve the biological quality of populations, there is no direct scientific evidence to support this conclusion with respect to modern war. Modern atomic war holds the threat of becoming a lethal culture trait that may destroy utterly the cultures that have produced it. The deadly issue is: will mankind invent the political and legal means to suppress war, or will military culture destroy its creators?

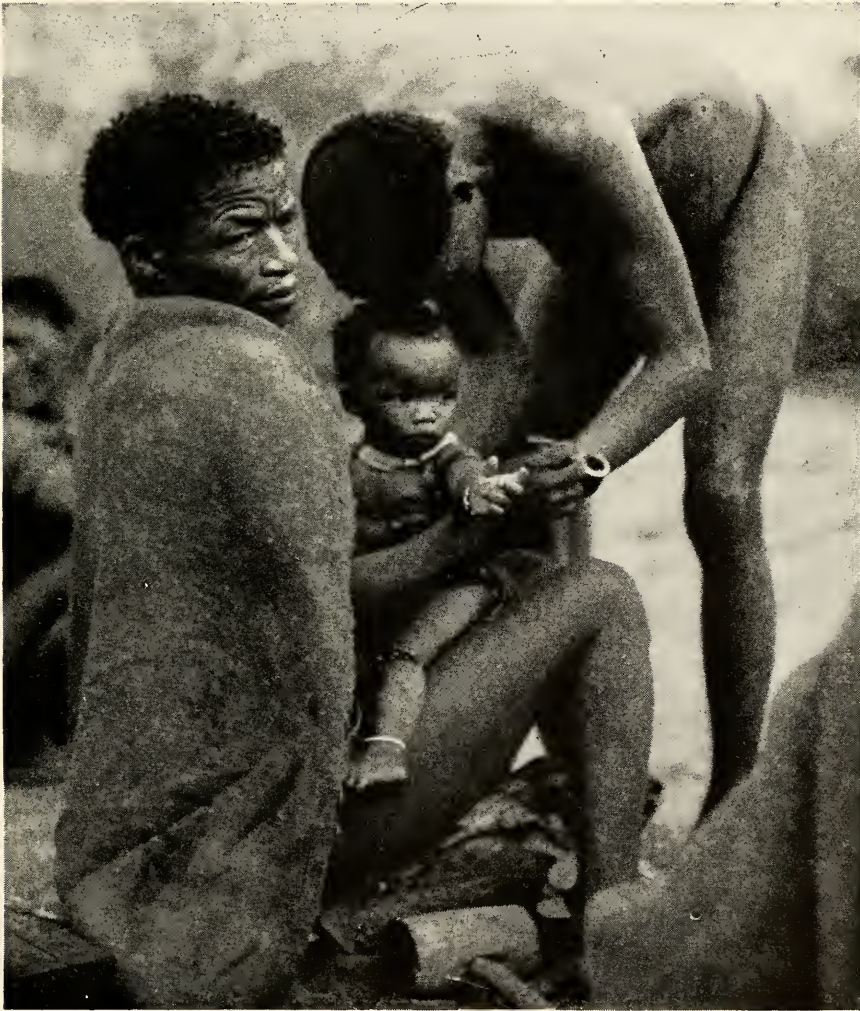
SELECTED READINGS

- Bram, J.: *An Analysis of Inca Militarism* (American Ethnological Society, Monograph). How the Incas organized and carried out their policy of conquest.
- Métraux, A.: "Warfare, Cannibalism, and Human Trophies," in J. H. Steward (ed.), *Handbook of South American Indians*, Vol. 5, pp. 383-409; also "Weapons," pp. 229-263. Provides a comprehensive summary of the war patterns and the weapons of South American Indians.
- Smith, M. B.: "The War Complex of the Plains Indians" (*American Philosophical Society, Proceedings*, Vol. 28, 1937), pp. 425-464. War as a way of life.
- Snyderman, G. S.: "Behind the Tree of Peace: A Sociological Study of Iroquois Warfare" (*Pennsylvania Archaeologist*, Vol. 18, Nos. 3-4, 1948). How the Iroquois made themselves a military power.
- Swanton, J. R.: *Are Wars Inevitable?* (Smithsonian Institution, War Background Studies, No. 12). An anthropological attempt to answer the question.

Part Four

PRIMITIVE CULTURE

G. RELIGION AND MAGIC



Father, daughter, and medicine man. Gautscha, South Africa. (*Bushmen File, Peabody Museum, Harvard University*)

CHAPTER 30. Animism, Mana, and the Supernatural

OF ALL the manifestations of man's intellectual and social life none is so elusive of definition as is religion. Yet none is more important. For religion, as an aspect of supernaturalism, consists of systems of belief, thought, and action that lie at the bottom of all primitive and civilized cultures. These systems of belief and actions work upward and outward throughout the cultural fabric. At points they thread so finely into the total pattern that it is impossible to say where the religious ends and the mundane begins. Religion presents so many aspects, intertwined with so many phases of culture, and is so variable, that it is difficult to delineate it in terms both broad enough to encompass the whole and discriminating enough to isolate it for study.

As is often the case, it is best to clear the ground by a negative statement of what religion is not. We must first peel away the parochial to find the universal core. The view of Fielding's Parson Thwackum in the novel *Tom Jones* is clearly the expression of the kind of attitude that, while it simplifies the problem, would make any anthropological study of religion impossible.

"When I mean religion," dogmatically declared the parson, "I mean the Christian religion; and not only the Christian religion but the Protestant religion; and not only the Protestant religion, but the Church of England."¹

Religion cannot be defined in terms of any particular religion. Nor does it depend on a belief in one god. Many religions are polytheistic. In his study of Ifugao religion in the Philippine Islands, for instance, R. F. Barton had some 5,000 deities identified for him by family priests; yet he felt sure he had by no means exhausted the list.² Few religions

¹ Cited by R. H. Lowie in *Primitive Religion*, p. x.

² R. F. Barton, *The Religion of the Ifugaos*.

are strictly monotheistic.³ Nor yet does religion depend on a belief in deities. Many religions have not developed concepts of such exalted spiritual beings as may properly be called *gods*. They may be essentially *animistic*, i.e., they may center on spirit beings rather than deities. Religion does not depend upon a clearly formulated creed or explicit body of dogma; and obviously among primitive peoples it cannot involve sacred books. Religion does not depend upon the existence of bodies of worshipers organized into churches or cult groups. Many religions are highly individualistic. Nor for the same reason does religion necessarily involve a priesthood, although there are religious specialists and practitioners in every society.

What, then, is the *sine qua non* of religion? What are the essential features that occur everywhere? They are found in the belief in supernatural forces combined with particular ways of behaving in consequence of such belief. Supernaturalistic beliefs, the attitudes, and the conduct related to such beliefs are what constitute religion.

SUPERNATURALISM

The fundamental problem is, then, first to examine the nature of what is meant by *supernaturalism*. It clearly implies a dichotomy of ideas: that which is natural and that which is more than natural, indeed, superior to the natural. In any thought system the difference between the two depends upon a people's general philosophy as to the nature of things, on their basic *existential postulates* and the way these are worked out in their *world view*.⁴ What is seen as *natural* and what as *supernatural* is relative to the culture of the moment. In our own systems of knowledge many things that we once viewed as supernatural have now been moved over into the area of the natural. The Neolithic axes (celts) which eighteenth-century Europeans thought were Jove's thunderbolts or elves' spittle are today recognized as man's handiwork from time gone by—perfectly natural products of human activity. Nothing is inherently supernatural; it depends on how people evaluate and look at things.

It is often said that religion exists in the areas of things that man cannot understand, that religion provides answers to the unanswerable. It is also said, in a like vein, that religion is based on fear. Both these assertions are true in part, but only in part. All culture consists of solutions to problems. As religion is an aspect of culture, it also shares the quality of set solutions to problems. Religion, like culture, produces understanding *in terms of the assumptions it makes*.

³ P. Radin, *Monotheism in Primitive Religion*.

⁴ What is frequently referred to by the German term, *Weltanschauung*. Robert Redfield has a very illuminating discussion of the general question of world view in *The Primitive World and Its Transformations*, Chap. 4.

The essential difference between the natural and the supernatural lies in the qualitative emotional (affective) attitudes of mind and feeling, or, as put by Professor Lowie, in "a sense of something transcending the expected or natural, a sense of the Extraordinary, Mysterious, or Supernatural."⁵ Religious belief is essentially mystical, subjective, whereas naturalistic belief emphasizes objective and rational determination of the facts.

A clarification of what is meant can be more readily achieved when put in the terms advanced by the French sociologist-anthropologist Émile Durkheim,⁶ who contrasted two polar attitudes: that which looks on certain things as *profane*, on others as *sacred*.

THE PROFANE

The sphere of the routine, mundane, taken-for-granted, workaday world.

Attitudes: blasé acceptance on a basis of common familiarity.

THE SACRED

The sphere of the unusual, extraordinary, not-to-be-taken-casually, "out-of-this-world."

Attitudes: awe, sense of mystery, circumspection in dealing with something special.

The terms *profane* and *sacred*, so used, have meanings somewhat broader than ordinarily accorded them in common English usage, and care should be taken to keep this constantly in mind. The profane, then, is that which is taken naturally, the sacred, supernaturally. The natural works in ways that are accepted as ordinary, as in accord with daily experience. The supernatural works in ways that are looked upon as unusual and special. The emotional connotations are consequently different. They are the product of human mental states.

Religion and magic therefore rest upon a belief in the supernatural, and they are basically matters of ideology and the kinds of feeling that accompany them. They require thought. Animals, although they certainly feel, do not engage in symbolic thought, as we have seen. Man alone symbolizes, and man's ideas about the supernatural are always symbolically expressed. So it is that on the subhuman level there is no religion or magic—no supernaturalism.

Supernaturalism is consequently a product of the evolutionary development of the human brain. Animals are too stupid to produce either religion or magic. Man reflects on the universe of experiences that engulf him, and he comes up with ideas about their nature, their causation, and their consequences. Some are supernaturalistic; some are not. The first religions were probably born way back in the Early Paleolithic,⁷ and

⁵ Lowie, *op. cit.*, p. xvi.

⁶ É. Durkheim, *Elementary Forms of the Religious Life*.

⁷ *Life*, December 12, 1955, has an excellent factual-imaginative treatment of this subject, replete with striking illustrations.

mystic thinking has controlled much of human life since then down to Aristotle, Plato, and the other Greek founders of modern science. Urban culture contributed to the birth of the Age of Enlightenment and the Age of Reason following the Renaissance in the West, greatly reducing the relative importance of supernaturalism in civilized thinking as compared to that of primitive peoples. Whether naturalism will entirely displace supernaturalism in future cultures cannot be said, although the general trend in the evolution of culture and human thought can certainly be said to be in that direction.

ANIMISM

What are the forms that supernatural ideas take? Basically, they may be broken down into *animism* and *mana*. Animism, as defined by the great nineteenth-century English anthropologist Sir Edward Burnett Tylor, is the belief in spirit beings.⁸ We all know them by name: souls, ghosts, goblins, poltergeists, genii, trolls, sprites, elves, pixies, leprechauns, fairies, witches, demons, devils, angels, and gods. Their essential quality is their ethereal embodiment; they are beings without real flesh and blood—nonmaterial, but real enough for those who believe in them.

As spirits they are not subject to the laws of nature. They are uninhibited by the limitations of physical matter, by the weaknesses of human flesh. They transcend matter, time, and space. They are supernatural. It is this that makes them wonderful, mysterious.

In his remarkable study, Tylor examined many manifestations of animism among primitives, but his interests were more than just to describe its forms. Tylor was essentially an evolutionist. For him the ultimate question was: how and why did human beings create the concept of spirit beings? Somewhere along the line in Paleolithic, or possibly in Eolithic times, the human mind peopled the universe with spirits. What led them to do so?

Tylor saw the origin of animism in the phenomena of dreams, of life and death. Dreams are a form of hallucination, an illusory experience. But that men dream is empirical fact. In dreams we transcend reality. We soar to great heights of attainment and pleasure; we experience horrible happenings; we relive the past and anticipate the future; we visit places once visited and those where our feet have never yet been; we commune with the dead and departed, or with the living who are far distant. Neither time, nor space, nor any limitations of the body hinder us—in our dreams.

Yet in sleep or in coma, the body does not leave its resting place. We

⁸ E. B. Tylor. *Primitive Culture*, Vol. I, p. 424.

wake where we lie down to rest—barring the unfortunate somnambulist. The body has not performed the miracles dreamed, but it is hard, even for the sophisticate, not to take dream experiences as real. To the primitive and, indeed, to many civilized men, the dream experience *is* reality.

Primitive man reflected and concluded that there were two parts to man: the bodily self of mortal flesh and the spiritual *alter ego*, the soul. The soul concept is the root of animism. It is a universal concept.

The soul is, in itself, quite intangible. In the language of many peoples the word *soul* is synonymous with *shadow* or *shade*. Intangible though it be, it is oftentimes perceptible in the image of the body it normally inhabits.

The soul is the vital force. Its presence animates the body. Its departure stills it. It is in the stillness of sleep that the soul goes wandering. Absence in dreams brings the restless body of man to the quiescence of sleep. Man's restlessness is of the spirit, not the body.

The long sleep that is death comes when the sojourning soul does not return. The body that is the vessel for the soul has no further function once its soul has abandoned it. Disintegration follows. Illness is due to intrusive corruption of the soul, or to soul loss.

This, according to Tylor, is the logic of the soul concept—in part.

Man lives not alone. The beasts of wood and field, the fowl of the air, the fishes of the waters are also endowed with vitality. So too are the plants. By means of analogical reasoning, primitive man attributes souls to them also, as the cause of their vitality. Yet it is not completely by false analogy, for animals appear in dreams, even as man. Thus, in most primitive belief, not only man but all living beings possess souls.

Souls after death become ghosts or free spirits wholly disembodied. They live on in the world of man, within his very community or in a special realm, which the spirits of living men may on occasion visit, or from which souls may come to visit the living.

Whether or not the concept of free spirits could arise only from the soul concept, as Tylor thought, or whether early man was imaginatively capable of creating the spirit concept out of mere nothingness, we shall never know. It is enough that pure spirits inhabit the believing minds of people in all societies and that these imaginary beings are thought to be beyond the laws of nature. They and souls are living elements in all religions.

The attribution of spirit qualities to plants and objects then produced, according to Tylor, what we call *nature worship*. From this came totemism and the creation of species deities, i.e., the deification not of persons (ancestor worship) but of animal creatures and plants. From these practices Tylor derived the higher polytheism of the later barbarians with its sky, earth, rain, thunder, lightning, fire, wind, water, sun, and

moon gods, as well as gods of agriculture, hunting, birth, war, and death.

"What ethnography has to teach of that great element of the religion of mankind, the worship of well and lake, brook and river, is simply this—that what is poetry to us was philosophy to early man; that to his mind water acted not by laws of force, but by life and will."⁹

Tylor's notions on the origins of monotheism and the Supreme Deity will be noted in the discussion of High Gods at the close of this chapter.

Of Tylor's anthropological theory of religion it may be said that it suffers some inadequacies, but in the main we can concur with Lowie's judgment:

His theory is avowedly a psychological interpretation pure and simple, but inasmuch as it not only explains the empirical observations, but operates exclusively with facts like death, dreams and visions, all of which demonstrably exercise a strong influence on the minds of primitive men, it must be conceded to have a high degree of probability. I, for one, certainly have never encountered any rival hypothesis that could be considered a serious competitor.¹⁰

MANA

Supernaturalism finds its expression not only in beliefs in spirit beings; there are also beliefs in the existence of supernatural forces that do not emanate from any kind of being. Such forces are expressed as special attributes of things much in the way that the force of gravity is related to objects that have mass. Following the suggestion of another early student of primitive religion, R. R. Marett, anthropologists call it *mana*, a word derived from the language of Melanesia,¹¹ where the concept of mana is strong and clear in native life.

Mana is a force, but not a vitalistic force. It exists as a supernatural attribute of persons and things. Above all, it is the exceptional power to do things that are unusual. Mana is, therefore, manifest in the unusual, when the unusual is not the work of spirits.

Extraordinary aptitudes of men are explained in terms of mana. The master craftsman in Polynesia excels in his skill because he possesses mana. The learned pundit excels in lore and knowledge because he possesses mana. The mighty warrior excels in the killing of men because he possesses mana. The outstanding healer, the expert canoeman, and any others who stand above their fellow men, do so because of personal possession or control of mana. Mana, though it is an impersonal force, can be manifest in and through persons, as well as in stock and stone. The queerly shaped or unusually marked stone may be believed to possess

⁹ Tylor, *op. cit.*, Vol. II, p. 209.

¹⁰ Lowie, *op. cit.*, p. 108.

¹¹ R. R. Marett. *The Threshold of Religion*.

miracle-working power. This is its mana. The canoe that can outdistance all others, the song that heals, the war club that smashes more than a normal quota of skulls, the talisman that in itself brings good luck—all these have power, power that is mana.

The power that is extraordinary is not mundane force. It does not follow the regular laws of ordinary technologies or skills. Like the power of spirits, it transcends the natural. Mana is supernatural.

RELIGION AND MAGIC

Man acts on the basis of his beliefs. Animism and mana are attributes of the subjective aspects of supernaturalism. Religion and magic are concepts based upon the ways in which man behaves in relation to the supernatural forces in which he believes. They constitute two forms of the external objectification of beliefs. The distinction rests on man's assessment of the motivating forces behind the supernatural. Is man subordinate to the caprice and will of the supernatural beings to whom psychological characteristics are attributed? If his answer is "Yes," his dealings with these beings, and theirs with him, will be religious in nature. Can man under certain conditions dominate and control the supernatural forces, be they animistic or manaistic? If his answer is "Yes," his dealings with the supernatural will be magical in nature.

That which distinguishes religion from magic is neither the goodness of one nor the evil of the other, but the state of mind of the believer and his consequent modes of behavior. This is the valid distinction that was originally pointed out by Sir James G. Frazer.¹² In the religious state of mind, man acknowledges the superiority of the supernatural powers upon whose action his well-being depends. His attitudes are preponderantly those of submission and reverence. The objective behavior put forth is manifestly that of beseechment, petition, and appeasement in prayer, offerings, and sacrifice.

Father have pity on me,
 Father have pity on me,
 I am crying for thirst,
 I am crying for thirst,
 All is gone—I have nothing to eat,
 All is gone—I have nothing to eat.

Such is the tenor of an Arapaho ghost-dance song, "sung to a plaintive tune, sometimes with tears rolling down the cheeks of the dancers."¹³

¹² Cf. J. G. Frazer, *The Golden Bough*, Chap. 4. Frazer argued a theoretical priority of magic over religion in prehistoric origins. This is a futile and irrelevant problem for which there are no empirical data upon which to base a conclusion.

¹³ J. Mooney, *The Ghost Dance Religion and the Sioux Outbreak of 1890* (Bureau of American Ethnology, Annual Report 14, 1896), p. 977.

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It epitomizes the religious attitude, as does the Lord's Prayer with its "Hallowed be thy name" (reverence); "Give us this day our daily bread" (petition); "Thine is the Kingdom, the Power and the Glory, forever" (subordination and awe).

"Oh spirits, here, humble in heart, I stand beseeching you" is the opening plaint of the Winnebago on a vision quest.

The magician, on the other hand, believes that he *controls* supernatural power under certain conditions. He has power over power. He feels confirmed in his belief that if he possesses a tested formula and if he executes the formula perfectly, barring outside interference, he will get the results which that formula is specified to give. The supernatural power has no volition or choice of its own. It must respond. Even as the student in the laboratory knows that if he follows the manual instructions correctly, he will obtain a predictable result, so the magician works in a similar confidence. The religious attitude and behavior are devout; the magician works with a kind of arrogance—or, at the least, of self-assurance.

Magic often does produce the expected results. It appears to meet the pragmatic test. What works is so. At least, it must do so in its initial applications, or the magical formula is usually rejected as false or worthless. When magic works, it does so for two reasons: (1) coincidence—if sufficient time is allowed, the desired event may well come to pass; (2) psychological suggestion—when magic is directed against persons who suspect or fear that they are its objects, hysteria or compulsion grips them; they sicken and often die. Psychologists call this *somatic compliance* and *thanatomania* (the depression of the will to live to the point of extinction). The records of travelers and anthropologists abound with cases from the primitive world. Clinical records reveal many authentic cases among civilized men. Doctors well know the importance of the psychological state of the patient in crucial illness or injury.

Magic also serves its ends by giving the magician and his clients a needed psychological boost. As Malinowski reiterated, magic begins where mechanical technology ends. A Melanesian knows that magic cannot dig the soil in which he must plant his yams, so he does his own digging. He knows that he must hoe to keep down weeds, so he hoes. But he also knows that, no matter how great his skill, pests, foraging animals, and climate are beyond his technological ability to control. Yet these and unknown factors affect his crop for better or worse. He desperately needs a good crop. It is the object of his most ardent wish, so he endeavors to control the unknown element by magic or religion, and the confidence they give him quite definitely helps him to outdo himself in achievement of his wished-for goal.¹⁴

The warrior who believes he has magic invulnerability can surmount

¹⁴ Malinowski's *Coral Gardens and Their Magic* is an anthropological classic.

Fig. 30-1. Divination with stone discs. Bushman. (Peabody Museum, Harvard University.)



fear to leap to heroism far more easily than the man who confronts danger without its support. Magic takes over when technology falls short; astrology boomed in Wall Street after the 1929 crash as financiers deserted the statistical charts of economists for the heavenly charts of astrologists.

Not only does magic actually aid the magician to attain his end in reality, it also fosters the illusion of attainment. When the dogma of magic is strong, the practitioner often thinks the magical result has come to pass when nothing of the sort has occurred at all. Magic has much in common with daydreaming as a form of wish-fulfillment.

Magic is thus in some of its aspects *pseudo science*, as Frazer held. When the magician proceeds on the mechanistic assumption that the magical formula is a cause that must produce a given effect, his thinking parallels that of the scientist. But his method rests on fantasies. It would, perhaps, be more accurate to call magic a *social technique* based upon autistic thinking—imaginative fantasy as means of wish-fulfillment.

Finally, it should be noted that magic often appears to work because the primitive magician may be as skilled a prestidigitator as the Mohammedan fakir. He simply bamboozles the credulous with skilled stage settings and sleight-of-hand artistry. And some of it is really good!

It is thus possible analytically to distinguish magic from religion, and the distinction is much more than a mere play on words. The difference between the two methods of approach to the supernatural has tremendous social consequences. Religious emphasis on supernaturalism leads to sub-

ordination of men to gods and to the power of cult functionaries—the shaman and priest. Religion is much more readily centralized and organized than is magic, which is inherently more individualistic. Although organized religions always use a certain amount of magic in their rituals, churches are implicitly antagonistic to magic, since the magical attitude is incompatible with the religious attitude of submission. The conflict endures through the ages. As recently as February 6, 1944, the Reverend Harry Emerson Fosdick, as reported in *The New York Times*, decried contemporary resort to magic and expressed regret “that millions turn to cheap superstitions as substitutes for faith.”

Because of its elemental kinship to science, magic is more susceptible to displacement by technological advances than is religion, and conversely, the element of personal dependence in religion is not so readily displaced by an advance in knowledge as is magic. Modern scientists may still hold to their religious faiths but all will renounce magic.

Primitive man, however, does not greatly concern himself with the analytical distinction between magic and religion. Rather, he blends them as best he may to attain his ends.

The Plains Indian on his vision quest makes himself pitiable in the eyes of the spirits. If they favor him, they give power along with sundry paraphernalia and the ritual wherewith to invoke power. He acquires his power by means of a religious approach to the spirits. Once he has it, he uses it as a magic instrument of control over them.

This is well illustrated in an account of the acquisition, use, and loss of supernatural power a Bannock Indian headman told to me in the course of my field work in the Snake River Desert of Idaho in 1933.

“A long time ago the Indians around here learned to play poker. I decided I wanted to be able to win at that game, so I went out to seek *poha* [power].

“I went out into the mountains to a place where I knew there were lots of pack rats. I wore only my breechcloth. I ate no food and drank no water.

“Continuously I prayed to the pack rats, ‘Oh, pack rats! Here I stand, a poor, helpless human being. Take pity on me! Wherever you go, you gather everything in. That’s the way I want to be among my people. I want to be able to gather everything in when I play poker.’ For three days and nights I fasted and prayed.

“On the fourth night a big pack rat, the grandfather of all the pack rats, appeared before me. ‘Human being,’ he said, ‘I have heard your prayers. I am taking pity on you. I shall give you my power.

“‘Now this is what you must do. When morning comes, scrape up the scale that is formed by our urine on the rocks. Make a small buckskin bag to put it in and wear this always around your neck.

"Now I will teach you four songs. When you want to use my power wash yourself with dry wood ashes to remove all grease and paint.¹⁵ Sing the four songs. Then when you go in to play poker, you will always win. You will be able to gather everything in, even as I do."

These things he did, and, according to his testimony, the power worked with great success until he got careless and cut in on a hand of poker right after doing a war dance—without washing off the paint in dry ashes. The effect nearly killed him and his power was destroyed forever.

In this experience, Running Water, for that was his name, was clearly using the approaches of the religious man. "Oh, pack rats! Here I stand, a poor, helpless human being. Take pity on me!" But he was also to become a magician. With the formula of the songs and the talisman of the urine scale, he automatically gained his ends at will—until he blew up the laboratory by carelessly failing to follow the formula.

Magic, it may also be noted, is often built on two aspects of the psychological principle of association. The first is the assumption that like objects and acts have an affinity for each other. This produces *imitative* or *homeopathic magic*, in which the magician puts a hex on an effigy of the person or object on which he would work his desire, or ritually recreates the thing he would effect. Pueblo Indians paint symbolic images of rain-bringing clouds, or altar symbols of the cloud image, or stir up billows of frothy yucca-plant suds in cloudlike masses, magically to induce the life-giving rains to shower their beneficence upon the parched desert gardens.

The second assumption is that things once intimately in contact retain an influence over each other. This produces *contagious magic* in which a hair, a bit of clothing, or even excrement, is filched from the victim, and with or upon which the magician works his spell.

Belief in imitative magic often accounts for the hostility of primitive peoples toward having their pictures taken. Who knows what might be done with the image? Belief in contagious magic sometimes makes a people most secretive about defecation. It may be the fear of sorcery rather than a sense of modesty that moves them.

Sorcery. Sorcery is magic used for antisocial purposes. Magic is in itself amoral, neither good nor bad. It is the uses to which magic is put that determine its moral qualities. Thus, a medicine man or witch doctor, as one who has control over magic, may be thoroughly good in the eyes of his people, or he may be evil, or both. A Shoshone medicine man is called *pohagant*, meaning "one who has power." A sorcerer is called *tidjipohagant*, or "one who uses power evilly."

Sorcery is a form of aggression against fellow beings or their possessions

¹⁵ Among American Indians grease is held to counteract supernatural power.

that is not socially approved. Magic may also be used aggressively, but it is not sorcery if its use is socially approved.

Among the Azande of Africa, for whom we have excellent reports by Professor Evans-Pritchard, good magic is *wene ngua* and bad magic is *ghighbita*. Vengeance magic (*bagbuduma*) may be legitimately used to kill a person, if the poison oracles used by the sorcerer's kin and their chief both say the alleged sorcerer is guilty. *Pe zunga* magic, which may be used when the perpetrator of homicidal sorcery is not known, is also good. "It is regarded as a judge which seeks out the person who is responsible for the death, and as an executioner which slays him." In the words of the Azande, "It decides cases," and "settles cases as judiciously as princes." Even though its effect is to kill, it is good, because it will work only on behalf of a just cause. If there is no just cause, it will return to kill the person who evoked it. The Zande who wants to kill another without just cause can use a number of forms of *ghighbita* magic. But if he is discovered, he will be executed.¹⁶

In most primitive societies, sorcery is punished as an illegal act, and excessive sorcery is treated as a crime against the society.¹⁷

TABU

Tabu is an inevitable element in supernaturalism. Supernatural power is implicitly dangerous. It is like fire or a heavy charge of electricity. When under control and directed toward desirable ends, it is beneficent. When out of control, it may well be disastrous. Man cannot get along without fire, yet he must fight a constant battle against it. Modern civilization cannot function without harnessed electricity, yet it must be handled with insulated tools and gloves.

Spirits and mana are by most people deemed to be absolutely essential forces in the human conception of the universe. They must be manipulated for human ends, but if improperly approached or used, they can backfire most dangerously.

Supernatural power, be it remembered, is above the realm of the ordinary. It does not operate according to understood natural laws. Because of this, it may not be approached or dealt with casually. It too must be handled with rubber gloves. Figuratively, tabus are great "*Caution! Handle with Care!*" signs. Tabu does not mean *verboten*, in the German sense. Rather, it carries the overtones of the French *défense de toucher*. The sense of awe that Professor Lowie sees as the important component

¹⁶ E. E. Evans-Pritchard, *Witchcraft, Oracles and Magic Among the Azande*, pp. 388-389.

¹⁷ Cf. E. A. Hoebel, *The Law of Primitive Man*, Chap. 10, "Religion, Magic, and Law," pp. 257-274.

of religion is intimately linked to the psychology that is responsible for the development of tabus.

In content, tabu consists of a series of negative rules, each of which states a form of behavior that will cause a supernatural power to backfire and injure the user. In reality, very few tabued acts are physically or socially dangerous. The function of tabu is predominantly psychological, originating in man's fear of dealing with forces he does not wholly understand. It also engenders respect and cautious care for the supernatural. Inasmuch as supernatural power always involves tabu, no man can ever take his possession of power wholly for granted.

Typical of the irrelevance of most tabus was the injunction that went with the war bonnet of the famous Cheyenne chieftain, Roman Nose. His bonnet had the power to give invulnerability in battle. With it Roman Nose rose unscathed to fame on the western plains. One of the rules of the bonnet was that its wearer must not eat any food taken from a dish with an iron utensil. If he did, a bullet or iron-tipped arrow could pierce him, just as the sharp metal pierced the meat, and the protective power of the hat would be nullified, until restored through a long and elaborate ceremony of purification and atonement.

Just before the famous Beecher's Island fight with General Forsyth's men on the Republican River of western Nebraska, in 1868, Roman Nose ate as a guest in the camp of the Sioux Indians. When it was pointed out to him that the wife of his host was using a fork in her cooking, he said, "That breaks my medicine." The battle began before Roman Nose could make atonement, so, like Achilles, he sulked in his tent. But under pressure, like Achilles, he donned his war gear, saying, "My food was lifted with an iron tool. I know that I shall be killed today." Roman Nose was killed by a bullet before he had a chance to strike a single blow in the battle.¹⁸

Violation of a tabu not only nullifies the positive power of medicine; it may bring disaster as a consequence.

In Polynesia, whence comes the word *tabu*, high-ranking nobles possess mana because of their direct descent from the gods. So potent is their charge of mana that their very persons are surrounded with tabus, as is everything they touch. Sin, in Polynesia as elsewhere, is the violation of a tabu—an act punishable by supernatural sanction.

Tabu is also an essential ingredient of social morality. It applies not only to the requirements of care in handling supernatural objects; it can, and is, applied to social standards of behavior that are not directly associated with the supernatural but in which it is held the supernatural

¹⁸ A thrilling account of the whole fight is given in G. B. Grinnell, *The Fighting Cheyennes*, pp. 267-282.

takes an interest. Incest is commonly subject to supernatural punishment, as well as to social sanctions, in most societies.

Tabu, therefore, functions to sustain the awesomeness of the supernatural by reinforcing attitudes of care and mystery, and by punishing attitudes of carelessness and profanity in dealing with the supernatural. It also sustains the social system by using supernatural sanctions to punish social deviants and would-be heretics.¹⁹

A third function of tabu is to set off the members of one social group from another. Just as a traditional hairdo may mark the social status of a married woman as distinct from the unmarried girl who has only reached puberty, or of a man from a woman, so adherence to special tabus may help set off the medicine man from the ordinary layman. Or if we look at our own society, the Jewish and Muslim tabus on pork clearly help to identify membership in these religious groups, as does abstinence from meat on Friday by Catholics, and the Mormon tabu on the use of tobacco and the drinking of coffee, tea, or alcoholic beverages.

Prayer and magic are the two basic techniques of dealing with the supernatural. The first is a means of seeking spiritual rapport on a basis of subordination to animistic beings. The second is a technique of external compulsion over supernatural powers, animistic and manaistic.

Between these poles every possible form of interpersonal behavior may find its religious counterpart. As Benedict observes, "There is probably no customary behavior towards one's fellows that is not to be found somewhere as a religious technique."

The only limits on religion are the limits set by imagination and the human physical system. Both allow tremendous scope for variation and elaboration. Hunting is limited by ecology, animal habits, and the physical laws of mechanics in the development of weapons. There are few variants among hunting techniques the world over; not so the varieties of religious experience and practice.

FOLKLORE AND MYTHOLOGY

Folklore and mythology embrace much more than just religion, for they encompass all the oral traditions of a people. Tales are often quite secular and make few supernatural assumptions. Yet most of the spoken traditions of primitive peoples are suffused with animistic beliefs and are thoroughly imbued with supernaturalism. Although some folklore may be separated from religion, religion is never divorced from folklore and

¹⁹ For an excellent example, see A. I. Hallowell, "The Social Function of Anxiety Among the Salteaux Indians," in D. Haring (ed.), *Personality and Cultural Milieu*.

myth. The origins of spirit beings, their qualities, and activities are commonly given literary expression in tales colored with high drama and imaginative appeal.

The questing mind of man has always asked the eternal "Why?" The creative minds of artists have always spun a literary web of answers in words and ideas. The human animal does not submit supinely either to the harsh demands of the physical world or to the ever-pressing demands of his society and its culture-bound limitations of individual freedom. Reasons are demanded. Reasons are given.

Myth in general is more than idle speculation about the origins of things. "It justifies by precedent the existing order and it supplies a retrospective pattern of moral values, of sociological discriminations and burdens and of magical belief. . . . The myth of magic, of religion, or of any other body of customs or single custom is definitely a warrant of its truth, a pedigree of its filiation, a charter of its claims to validity."²⁰ Myth-believing is more than infantile self-deception; it is also social reassurance—a device of education and learning, of culture maintenance.

Although primitive mythology is rich in variety, it is truly remarkable to discover how stable is the solid core of basic myths the world over. It would seem that the fundamental myths strike right to the roots of the question as to what is man, how did he come to be, why is life, why death, why evil—and good. Once developed by primitive literary philosophers, refined and shaped through generations of telling and retelling, their appeal became so elemental that they spread smoothly and quickly from primitive hearth to primitive hearth until the whole world was girdled with a pristine web of common stories. So it is that the Scandinavian scholar Olrik speaks the experience of all students of primitive and civilized folklore when he writes, "Everyone who deals with folk-literature has had the experience that when he reads compositions from widely different peoples he has a feeling of recognition, even when the particular group and its world of folktales has thus far been unknown to him."²¹ It is for this reason that Sir James Frazer was able to show in a fascinating book, *Folklore in the Old Testament*, the ancient and primitive common heritage of many of the primeval tales of the ancient Hebrew tribe inscribed in the Bible. The Creation, the Flood, the Fall of Man, the Mark of Cain, the Tower of Babel, and many others are part of a world-wide heritage of ancient myth, part religious, part secular.

²⁰ B. Malinowski, "Culture" (*Encyclopedia of the Social Sciences*, Vol. 4, 1937), p. 640.

²¹ Quoted in S. Thompson, *The Folktale*, p. 456. This book summarizes myth motifs for the Old World. See his *Tales of the North American Indians* for this continent.

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Folktale, legend, and myth are the timeless handmaidens of religion and magic. They are also the fertile seedbeds from which are transplanted the roots of the sacred books of the great religions of later civilizations.

SUMMARY

Religion and magic are two manifestations of supernaturalism. What constitutes the supernatural varies from culture to culture, but in essence it is the quality of the extraordinary in the phenomena of the universe. Religion and magic consist subjectively of belief in the existence of the supernatural and, objectively, in ways of dealing with it. The distinction between magic and religion is drawn in terms of the attitudes and practices of the believer. The religious person acknowledges his inferiority to spirit beings; the magician believes he has mastered a supernatural force through the possession of a compulsive formula.

According to the theory of Tylor, the belief in the existence of spirit beings (animism) developed as a psychological rationalization of dreams, and it was applied to the explanation of otherwise not understood occurrences. *Mana* is the supernatural without the being quality.

Supernaturalism permeates primitive cultures and all civilizations. It is unique with human beings, and it is, at the same time, a universal feature of culture.

SELECTED READINGS

- Evans-Pritchard, E. E.: *Nuer Religion*. A penetrating field study of the concept and role of supernatural forces in a culture that lacks dogma, liturgy, sacraments (in a strict sense), or a developed religious cult and mythology.
- Goode, W. J.: *Religion Among the Primitives*. This book undertakes to scrutinize the interrelations of religion with other aspects of culture.
- Howells, W. H.: *The Heathens*. A lively overview of primitive religious practices.
- Lowie, R. H.: *Primitive Religion*. Brief vignettes of several primitive religions, followed by critical discussions of a number of anthropological theories of religion.
- UNESCO: *African Worlds*. Nine very useful studies of the world view and religious systems of selected African tribes.

CHAPTER 31. Shamans, Priests, and Cults

THE subjective element of religion and magic is always given external form. Art, as we have seen in an earlier chapter, often transforms the imagined spirit or god into an object of art that can be seen and felt, perhaps even smelled. Religion and magic are also transmuted into dramatic ritual in the form of ceremonial practices, repeated gestures of word, movement, and sound. The belief is reinforced by repeated dinning into the entire receptor and kinesthetic system of the individual members of society.

Emile Durkheim, with whose analysis of the sacred and the profane we became acquainted in Chapter 30, saw ritual participation as the true essence of religion. Man rises above the humdrum monotony of everyday grubbing for food into the ecstasy of sacred experience obtainable only in periodic group dances and ceremonies such as the *corroborees* of the Australian aborigines. Religion, for Durkheim, is an expression of social solidarity. Man alone is as nothing. He realizes his significance and worth only as a member of a social group. All rituals and beliefs symbolize society. *N'est-ce-pas que le dieu et la société ne font qu'un?*

Durkheim's interpretation of the nature and function of religion is extreme. Nevertheless, he is right in his recognition that ritual and ceremony translate the intangible into the real and felt, cementing the solidarity of the group.

In every primitive society *all* the people participate in some aspects of religious observances. Yet, because every society is internally segmented by sex, age, kinship, and marital groupings, access to religious power and the privileges of religious participation are not equally distributed. In the first place, it takes some years of experience and learning to get to know enough about basic religious beliefs for an individual to be in a position to master religious activities. Children always participate on a lower level.

Religion and magic are sources of power: means of influencing or controlling supernatural power, the greatest of all powers. Authority vested in adults is implicitly necessary to the perpetuation of culture. Here is a special reason for keeping the heart of religious power in the hands of grownups.

The centers of religious power are also almost universally vested in men. Male-dominance tendencies lead men to keep access to the supernatural as a vested interest of the male sex. In more advanced, class-stratified societies, formal religious power is almost inevitably an upper-class monopoly.

SHAMANS

If religious power is unevenly available on the basis of age, sex, and class standing, within the body of those who qualify in these terms there are still others who seek or achieve an even more intimate access to the supernatural. They become religious specialists. Religion and magic are always so complex and, by their very nature, so universal and extraordinary, that the layman who is wrapped up in the day-to-day activities of getting a living cannot penetrate very far into the realm of the sacred. To do this requires time away from basic food production, plus peculiar personality aptitudes and skills. The men who have the time and the skills may become religious functionaries: shamans or priests. The shaman is the more primitive type of specialist. He exists in systems in which religion has not developed a church.

The center of the most intensive development of shamanism in the primitive world is aboriginal Siberia. The very word *shaman* comes from a native Siberian tongue. Synonyms also meaning *shaman* are *medicine man* (usually applied to American Indians), *witch doctor* (usually applied to Negroid shamans of Africa and Melanesia), and *angakok*, in Eskimo.

The Siberian shaman is more definitely set off from his fellow men than is his North American counterpart. For one thing, his personality is more clearly marked. For another, his "call" and training are more definite. Bogoras, the famous Siberianist, wrote of the Chukchi,

For men, the preparatory stage of shamanistic inspiration is in most cases very painful, and extends over a long time. The call comes in an abrupt and obscure manner, leaving the young novice in much uncertainty regarding it. He feels "bashful" and frightened. . . . The young novice, the "newly inspired," loses all interest in the ordinary affairs of life. He ceases to work, takes little food and without relishing it, ceases to talk to people, does not even answer their questions. The greater part of his time he spends in sleep.¹

¹ W. Bogoras, "The Chukchee I: Religion" (*Jesup North Pacific Expedition*, Vol. 7), p. 420.

Bogoras observed that they were as a rule excitable and hysterical. He even opined that not a few of them were "half crazy." Psychiatry was not the vogue in Bogoras's day or he would have attached the label schizophrenic to the personality of the Siberian shaman.

The personal experience of a Northern Paiute Indian, who lived in western Nevada, is more or less typical of the way in which an American medicine man received power. As recorded by Willard Park it runs as follows:

When I was a young man I had dreams in which I doctored people. I did not take those dreams seriously. My uncle was an Indian doctor. He knew what was coming to me. He told me to be careful in talking, not to speak harshly (in order not to offend the supernatural spirits). I did not become a doctor from these dreams. Finally, I decided to go to the cave near Dayton. I was about fifty then. My uncle did not tell me to go there. I just decided to do this myself.

I went into the cave in the evening. As soon as I got inside, I prayed and asked for power to doctor sickness. I said, "My people are sick. I want to save them. I want to keep them well. You can help me make them well. I want you to help me to save them. When they have died give me power to bring them back [return the lost soul]." I said this to the spirit in the cave. It is not a person. It comes along with the darkness. This is a prayer to the night.

Then I tried to go to sleep. It was hard to sleep there. I heard all kinds of noises. I could hear all the animals. There were bears, mountain lions, deer, and other animals. They were all in caves in the mountain. After I went to sleep I could hear people at a doctoring. They were down at the foot of the mountain. I could hear their voices and the songs. Then I heard the patient groan. A doctor was singing and doctoring for him. A woman with a sage-brush shoot in her hand danced. She moved around the fire jumping at every step. Each time she jumped she said, "ha', ha', ha'." Then the shaman sprinkled water on the patient with sage-brush. The singing and dancing went on for a long time. Then the singing stopped. The patient had died and the people began to cry.

After a while the rock where I was sleeping began to crack like breaking ice. A man appeared in the crack. He was tall and thin. He had the tail-feather of an eagle in his hand. He said to me, "You are here. You have said the right words. You must do as I tell you. Do that or you will have a hard time. When you doctor, you must follow the instructions that the animals give you. They will tell you how to cure the sickness. I have this feather in my hand. You must get feathers like it. You are also to find the things that go with it. Get dark beads. Put them on the quills of the feathers and tie a strip of buckskin to the quills. Also get a hoof of a deer, and down from the eagle. With these you can go to people to cure them. These are your weapons against sickness. You must get three rolls of tobacco. You can use them to tell your patients what made them sick and then you can cure them. The tobacco will also help you if you are choked with clots of saliva when you suck out the disease. With this you are beginning to be a doctor. You will get your songs



Fig. 31-1. Curing with shamanistic power. Vicos, Peru. (Peru-Cornell Project, photograph by John Collier, Jr.)

when you doctor. The songs are now in a straight line [ready for use]. Bathe in the water at the foot of the cliff and paint yourself with *i·bi* [white paint]."

Then I woke up. It was daylight. I looked around but I could not see anyone. The man was gone and there was no sign of the animals or the people who had been singing and doctoring. Then I did as the spirit had ordered and waited to become a doctor. In about six years I had received enough instructions to begin to cure.²

Also more or less typical of a common process of becoming a shaman is Barton's account of the way female shamans among the Ifugao get that way.

The priesthood is almost entirely in the hands of women. Entry into it is always in answer to a "call" and is, in a sense, compulsory: the woman begins to sleep badly, has many dreams, grows thin, lacks appetite, believes that her soul has married an *anitu*³ and that she can extricate herself from the condition only by becoming a priestess (*mangaalisig*). Or she may become conscious of the call from getting a stomach upset after she has eaten foods that are taboo to priestesses: eel, dog, certain fish, meat of the cow (but not carabao). She is said to be taught the rituals by the gods themselves, not by the older priestesses. But, of course, she has been watching and hearing these since she was a little girl and wondering whether fate would ever call her to be a priestess when she grew older.⁴

Suggestibility and a greater or lesser degree of emotional instability are

² W. Z. Park, *Shamanism in Western North America*, pp. 27-28.

³ Soul of a deceased person.

⁴ R. F. Barton, *The Kalingas*, p. 24. The calling of a Yurok girl to shamanhood is portrayed in "The Reluctant Shaman," in *The Ways of Mankind*, Series II.

essential traits of the shaman who obtains power by mystic experience. He or she must be capable of hallucinations. The person who cannot respond with visions and hallucinations to the pervading cultural suggestion that these form the road to power is out of luck if he would be a shaman. Crashing Thunder, a Winnebago Indian, was one of these. Even when he faked a vision and luck seemed to confirm his power, he knew in his inner self that his power was false. An extrovert whose aggressive personality demanded social prestige and the opportunity to amount to something, he was frustrated by his intellectual hardheadedness. Not finding the social means (supernatural power) to greatness open to him, he took the antisocial road—drunkenness, rowdiness, debauchery, murder, and fraud. Then when peyote at last reached the Winnebagos, the vision-stimulating drug brought visions and power to the tortured man. With power came the reorientation of his personality. The bum became a pillar of society, a moral leader, and a decent citizen—much to the relief of his fellow tribesmen.⁵

The evidence is clear that to be a spirit-endowed shaman the odds favor those who belong to what in our society we would unkindly call the *lunatic fringe*. But the cultures of these people turn their peculiarities to account and make honored medicine men and women of them.

The shaman, as inheritor of magical power, is a different matter. True, the magician is the dupe of his own beliefs, but it is possible for him to work with cold calculation. Highly developed magic often involves sheer fraud, skill in prestidigitation, and the creation of optical illusions. Siberian and Eskimo shamans are skilled ventriloquists, using their tambourines so to deflect their voices that the listeners, “after a few minutes . . . begin to lose the power to locate the source of the sound. . . . The song and drum seem to shift from corner to corner, or even to move about without having any definite place at all.”⁶

The Algonquian Indian medicine man holds impressive séances in which the tent rocks and pitches violently upon the arrival of his “spirit.” The tent is cleverly constructed to be manipulated mechanically with ropes and thongs.⁷

Pueblo Indian priests put on miracle dramas in which corn grows and ripens overnight and deer and bears materialize before the astounded eyes of uninitiated spectators. Some *kivas* are equipped with secret tunnels through which the props and actors are brought upon the scene.⁸

⁵ P. Radin (ed.), *Crashing Thunder*. This book should not be missed by any student of anthropology.

⁶ Bogoras, *op. cit.*, p. 430.

⁷ F. Densmore, “An Explanation of a Trick Performed by Indian Jugglers” (*American Anthropologist*, Vol. 34, 1932), pp. 310–314.

⁸ E. A. Hoebel, “Underground Kiva Passages” (*American Antiquity*, Vol. 19, 1953), p. 76; and F. H. Hawley, “Jemez Kiva Magic and Its Relation to Features of Prehistoric Kivas” (*Southwestern Journal of Anthropology*, Vol. 8, 1952), pp. 147–163.

However, the deceit practiced by shamans may not always be such crass charlatanism as it at first appears. Eskimo shamans often disclaim their own skill, as did one of the best of them to Peter Freuchen. "This is nothing for a man like you to look at. I am only a big liar, and even if these idiots are stupid enough to believe me, I never expected you to stand for it. I am a foolish old man, and what happens here has nothing to do with the truth."⁹ But the effect of his performance on the people in the iglu was ecstasy. People are not adverse to being fooled, if it gives pleasure. Beyond that, of course, credulous ones are duped without their being the wiser.

It is difficult to draw an accurate balance between the exploitative and social-service activities of the primitive shamans. It is a false gesture to dismiss them solely as a class of exploiters. Yet it is true that they often turn their position and power to self-advantage. Eskimo shamans can impose almost any tabus they wish on individuals. They can sexually exploit women, married and unmarried, to gratify themselves in the name of spirits. Shamans can use their power particularly to consolidate the position of the elders as against the younger generation. But for this they must pay a price in self-denial of many things, for their work is dangerous in its own terms, and the burden of shamanism is often hard.

PRIESTS

Priesthood is a manifestation of developed religion. It occurs in the more ordered primitive societies whose cultures are rich and complex. On the whole, it calls for an economic base of sufficient richness to support fairly large populations, plus some food and wealth surpluses. It is necessary to be able to organize and sustain permanent cults. The priest may have mana, but his power is less his own than the power resident in the office he holds. Unlike the shaman, he does not acquire his sacredness personally. He is vested in his succession to the *office* of priest. He becomes part of a religious corporation.

Priesthood emerges along two basic lines: (1) the family heads in ancestor-worshipping religions who serve as priestly intermediaries between the kinship group and the deceased ancestors, and (2) the priests who serve cult groups whose interests are directed toward special spirits or deities.

Priestesses are much less common than female shamans, probably for the reason that the organization of associations tends to be correlated almost exclusively with the male sex in primitive societies.

Although in many primitive cultures there is a recognized division of function between priests and shamans, in the more highly developed cultures in which cults have become strongly organized churches, the priest-

⁹ P. Freuchen, *Arctic Adventure*, p. 113.

hood fights an unrelenting war against shamans. Priests work in a rigorously structured hierarchy fixed in a firm set of traditions. Their power comes from, and is vested in, the organization itself. They constitute a religious bureaucracy. Shamans, on the other hand, are arrant individualists. Each is on his own, undisciplined by bureaucratic control; hence, a shaman is always a threat to the order of the organized church. In the view of the priests they are presumptive pretenders. Joan of Arc was a shaman. She communed directly with the angels of God. She steadfastly refused to recant and admit delusion. Martyrdom at the stake was ordained by the functionaries of the church. The struggle between shaman and priest may well be a death struggle.

SORCERERS

In the preceding chapter, attention was called to the fact that magic may be good or bad according to the values of the society concerned. The anthropologist, whatever his personal beliefs, does not as a scientist make the judgment. He records the standards in the terms of the society he is studying. Anthropological study has established that belief in magic is universal. It also has established that the distinction between good and bad magic, or what we call *white* and *black magic*, occurs in all societies. The standards of judgment vary from culture to culture, however.

In the Trobriand Islands, for example, Malinowski showed how the paramount chief is the head garden magician. The entire well-being of the society depends upon his magic skill, used for socialized ends. On the other hand, the chief's control of the garden magic is the strongest weapon of power. The angered chief may punish his people by refusing to perform the necessary rain-making magic and so produce a drought that causes all his people's gardens to fail.

Individual Trobrianders also have control of magic that can kill people. If a chief hires a magician to kill a lawbreaker, this is acceptable and good. In contrast, if a magician uses his secret power to kill a fellow Trobriander on his own, this constitutes a murder that will be punished by means of the execution of the sorcerer by his victim's kinsmen, if they find him out.

In almost all primitive societies magicians who use their supernatural power to help people in socially approved ways are "doctors," "witch doctors," or "medicine men." Their work is socially rewarded in prestige and wealth. Those who use their powers to injure people in socially forbidden ways are sorcerers. They may be killed through a legitimate use of countermagic or executed as lawbreakers.¹⁰

¹⁰ For further details, see E. A. Hoebel, *The Law of Primitive Man*, Chap. 10, "Religion, Magic, and Law."

ANCESTOR WORSHIP AND THE CULTS OF THE DEAD

Ancestor worship is by no means a universal form of religious expression, although belief in the spiritual immortality of the dead is. All cultures call for cognizance of ghosts, and all provide some means of dealing with them. The intensity of ghost awareness, however, and concern over the activity and feelings of ghosts are variable. In North America, the Pueblo Indians pay little attention to ghosts; the Plains Indians fear them but their ghosts are not too prevalent; the Navahos and Eskimos are bedeviled by ghost anxiety. They possess definite ghost cults, a body of practices and ritual observances associated with the propitiation or avoidance of ghosts.

Most Plains Indians and the Navahos abandon any house in which a person has died. The ghost haunts the house and disturbs the inhabitants. Navahos, therefore, take a seriously ill patient who is about to die outdoors in order to save the house. The Arizona desert is dotted with hogans abandoned because a death has occurred within. One of my Shoshone friends compromised this problem by dismantling a log house, moving it a few hundred feet, and then reassembling it, after mixing up the logs to fool the ghost of his brother, who is now unable to recognize the new house. Ghost fear has long been a hindrance to Indian Service efforts to provide modern housing on some reservations. In the northern Plains a workable expedient acceptable to the Indians in some places has been to fumigate the house as an effective antidote to ghosts!

Eskimos believe that ghosts are harmful and relentlessly malicious as long as they remain in the memory of the living. On death the corpse is not removed from the iglu by way of the door; this would make it too easy for the lingering ghost to reenter. Rather, a hole is chopped in the back, later to be refilled after removal of the body. This baffles the ghost. Then, lest the ghost does find the entrance, knives are set in the snow floor of the doorway for three nights after burial. Such booby traps discourage ghosts. Among Eskimos, as with many other people, the name of the dead is tabued, lest it summon the reappearance of the ghost. Later, the name is given to a newborn child, reincarnating the name soul of the deceased ancestor.

Comanches also tabu names of the dead, but when they wanted to mention a defunct friend named Pork, they called him Bacon. Ghosts are literal-minded, but people can get the idea.

Eskimos, like many other people, bury the dead with grave offerings—the personal equipment and gifts of friends and relatives to serve the ghost in the other world. These are “killed.” They are broken to release the animate soul of the object. For it is the spiritual counterpart of the goods that obviously is used in the spirit world.

Plains Indians also sacrificed a warrior's favorite horse on his grave,

as did medieval Europeans at times. This is no longer Occidental practice, but the officer's horse led behind the casket-bearing caisson with reversed saddle and upturned stirrups still follows the hero to his grave, only to be spared the final sacrifice.

Grave sacrifices were stepped up to extravagant heights for the royalty of Africa and India. Into the nineteenth century Hindu wives were immolated on the funeral pyres of their princely husbands. In Dahomey in West Africa whole corps of wives and retainers were slain to provide an adequate retinue for the deceased king. Shoshone and Comanche tradition has it that in ancient times wives were killed to accompany their husbands' spirits, but in more recent days the wives followed the general Plains Indian practice of self-mutilation and abnegation.

Ghost cults usually, but not always, emphasize the malevolence of ghosts. Manus in Melanesia is an exception. The ghost of the last deceased household head is the preceptor and protector of his family. He punishes their moral derelictions, but above all he is busy thwarting the malignant efforts of other ghosts. All ghosts are malicious toward people not of their own kin group. The social and economic rivalry that is characteristic of everyday Manus life continues in the afterworld through the jealousy and rivalry of the ghosts. Each family ghost enjoys a brief span of immortal existence, while his skull adorns the doorway of his family hut. But the death of an adult male in the household is indication that the family ghost has not been on the job. He has been negligent enough to permit a rival ghost to kill his descendant. He is no good. Therefore his skull is thrown out and replaced by that of his successor, who then rules as the Honored Ghost of the household until he, too, fails in his duty.¹¹

Ancestor worship is both an elaboration and an abstraction of the ghost cult. As an elaboration it is best seen among the Bantu tribes of Africa. Every lineage and clan has its distinct ancestral deities, who are gods to their descendants and ignored by the members of other kinship groups. The gods of royal clans, because the heads of such clans must be honored by all the kingdom, are not only worshiped by the royal clan itself but by all the subjects of the king. In ancestor-worshipping cults of this order the eldest ranking member of the kin group is not only its headman but also its priest. He stands nearest to the ancestral gods. He is the intercessor on behalf of his kinsmen. On the gods' behalf he is the intermediary who is responsible for controlling the acts of his family or clan members. As in modern Japan, he has to keep the ancestral gods informed of the state of affairs within his domain. The Mikado has merely to make a ceremonial report at the ancestral shrine, but in Dahomey in West Africa it was customary to execute a couple of victims

¹¹ R. F. Fortune, *Manus Religion* (Proceedings of the American Philosophical Society, 1935); M. Mead, "The Manus of the Admiralty Islands," in *Cooperation and Competition among Primitive Peoples*, pp. 210-239.

to carry the royal message to the ancestors whenever the king had anything of moment to report.

Periodic elaborate feasts and sacrifices on behalf of the ancestral gods are characteristic of the western Sudan. In Dahomey, such ceremonies are held by each clan every year, with litanies, dancing, offerings of food and libations of liquors and sacrifice of animals. In the annual ceremonies of the royal clan human victims used to be offered.

Vodun,¹² among West Indies Negroes, is nothing more than a syncretism of Dahomean ancestral rites and Catholicism.¹³ The clan founders of Dahomey are known as *tovudun*, from whom the *vodun* cult is named. Vodun rites are fundamentally family rituals with offerings and sacrifices accompanied by chants and dances, in which various gods are impersonated and called upon to visit the ceremony. Dancers representative of specific gods are possessed in turn as each god is called with his drum *salute* (greeting). The trance behavior of the votaries and the ecstasy of the worshipers lend the eerie wildness to the performance that has given vodun its exotic reputation.

Ancestor worship as an abstraction of ghost worship occurs where gods are thought once to have been human beings but the more recently deceased are not believed to be potent deities. This may be said to be true of Polynesian and Pueblo Indian religions. Maori chieftains are lineal descendants of gods through primogeniture. Honor is due these gods, but there is no cult of the dead. The masked gods, *kachinas*, of the Pueblos are vaguely thought of as ancestral beings, but dead ancestors are not worshiped as such.

Social conservatism is a characteristic feature of ancestor-worshipping religions. The ancestors as moral preceptors do not favor change from the social practices they knew as men. Since they punish moral lapses with death and illness and their standards are the old ones, the religious sanctions toward conformity are powerful.

Nature Worship. Cults deifying various features of nature abound in the primitive world. Among agricultural and gardening peoples, sun, rain, and fertility deities are outstanding. Solstitial rites marked the annual crisis of the sun in the religion of the megalith builders of Neolithic Europe. Mysterious Stonehenge and Avebury in England, and the cromlechs of Carnac in Brittany are aligned to the rising sun at the time of the spring solstice, as is the sun stone in the famous Sun Temple of Mesa Verde National Park, built by prehistoric Pueblo Indians 700 years

¹² *Vodun* is the phonetically correct name for the cult complex popularly called voodoo.

¹³ Cf. M. J. Herskovits, "African Gods and Catholic Saints in New World Negro Belief" (*American Anthropologist*, Vol. 39, 1937), pp. 635-643; G. E. Simpson, "The Vodun Service in Northern Haiti" (*American Anthropologist*, Vol. 42, 1940), pp. 236-254

ago. In ancient Rome, the solstice rites of the Mithraic cult gave way to the Christian Christmas celebration of the birth of Christ as the new light of the world. Each pueblo in the Southwest today has its priestly sunwatcher, who controls the ceremonial cycle with the movements of the sun. Pious people greet the sun with prayer each day.

All the religions in the great Central American culture complex made much of the sun. The Pyramid of the Sun near Mexico City is one of the truly great monuments of our southern neighbors. The Natchez of Mississippi and the Incas of Peru built theocratic states around the principle of sun divinity. The Natchez high chief was also high priest, called the Sun, or brother of the Sun. The Inca of Peru was the personification of the divine sun. And until the disaster of 1945 induced the Emperor of Japan to deny it by imperial edict, he was supposed to be a divinity directly descended from the mythical sun goddess Amaterasu.

The sun figured greatly in Plains Indian religion. All tipis opened east, and tribal camp circles likewise. By the nineteenth century the mid-summer sun dance had come to be one of the most spectacular of Plains ceremonials.¹⁴

Although the sun looms large in the mythologies of the peoples of the Pacific area, it does not assume importance as an actual deity. This is true also of Africa and most of North America. Ancient Europe, the countries of the Mediterranean basin, and India were the great seats of sun worship.

In Africa and Polynesia, although the sun is not glorified, nature worship is not neglected. The entire universe is departmentalized among gods of the skies, earth, waters, trees, and thunder, with myriads of subdivisions among the specialized deities. On the less-than-god levels all primitive religions include multitudes of nature spirits associated with particular spots, trees, volcanoes, mountains, rivers, lakes, and rocks. Barton, in his recently published work on *The Religion of the Ifugaos*¹⁵ lists 1,240 deities for this single Philippine tribe and estimates that the total number known to the best informed priests is probably more than 1,500. Many of these are nature gods.

To primitive man the whole world lives. Souls animate things, and whatsoever embodies the soul is a spirit being to be treated with religion or magic—or both.

Fetishism. When a material object is believed to possess mana or to be possessed by a spirit being, and when it is venerated or cherished be-

¹⁴ Cf. G. A. Dorsey, "The Cheyenne, II, The Sun Dance" (*Field Columbian Museum, Publication 103, Anthropological Series*, Vol. 9, No. 2, 1905) for a good description of a typical sun dance with many illustrations. Volume 16 of the *Anthropological Papers of the American Museum of Natural History* contains descriptions of other tribal sun dances.

¹⁵ American Anthropological Association, Memoir 65, 1946.

cause of this, it is a fetish. Because of its imputed value, it receives special attention and care, and it is this attribute that leads to our popular phrase "to make a fetish of something." The word is derived from the Latin *facticius*, an amulet, by way of the Portuguese *feitiço*, after the use of the word by the Portuguese adventurers, who first met with it in their voyages along the west coast of Africa.

Fetishes are symbolic repositories of supernatural power, and they serve the psychological function of objectifying the belief. They are a rallying point for faith, a visual stimulant to faith.

Fetishes may be simple or precious stones, implements, trees, mountains, or often art objects endowed with power. It is commonly recognized that art receives much stimulus from the attempt to express religious belief in concrete form. However, mere art as such is not *ipso facto* fetishistic. As Lowie comments,

The representation of a human figure is not an effective fetish until it has been through the hands of the medicine-man and received its power from him. What confers upon the object its supernatural potency is solely the mysterious spell sung over it or the substance, wonder-working in its own right like the *ngula* paint, thrust into a ventral cavity. Hence, only a moderate percentage of the human or animal figurines are in reality fetishes. . . . Any object can become a "fetish" if only it has been ritualistically consecrated.¹⁶

The High God Concept. The time has passed when informed civilized men could think the primitive mind incapable of conceiving of a Supreme Being or High God. Tylor's greatest error was to infer that the High God concept could be only the end product of a long intellectual evolution, beginning with the soul concept and leading through ghost and ancestor worship to polytheistic nature worship on to monotheism.¹⁷

Andrew Lang,¹⁸ before the turn of this century, proved that Australian, Polynesian, African, and American Indian notions of the High God were not derived from Christian teachings. The indefatigable Austrian anthropologist Wilhelm Schmidt has confirmed it with his stupendous four-volume work, *Der Ursprung der Gottesidee*.¹⁹

The essential beliefs of primitive men concerning the High God are that he is the original creator of the world; that the world as he made it was good; that he is not a spirit being (in the usual sense); that he is non-anthropomorphic, nonnatural, lives in the sky remote from earthly affairs, has retired from active participation in daily events (is otiose), and is on the whole unapproachable and disinterested. Because of this, there

¹⁶ R. H. Lowie, *Primitive Religion*, p. 269.

¹⁷ E. B. Tylor, *Primitive Culture*.

¹⁸ A. Lang, *The Making of Religion*.

¹⁹ See W. Schmidt, *The Origin and Growth of Religion*, pp. 167-217, a condensed version of Schmidt's thesis.

is little ritual and cult ceremonial directed in his favor. Temples are not raised to him, no sacrifices given (except offerings of first fruits), and prayers are offered only infrequently and by few people.

In cosmological lore his acts of creation are generally only vaguely conceived. Myth tells how he created departmental, executive sub-deities charged with the responsibility for filling in the details of creation and running the universe. These are the gods men must appease and pray to. They are the ones who deliver or withhold the goods.

Evil in life is due to their perversity or maliciousness. A common counterpart of the High God is a Trickster or Transformer, like Coyote among the western American Indians, who spoils or modifies the good work of the creator to burden man with death, sin, and travail. The Trickster is the equivalent of the serpent in the garden of Eden.

Lang felt that the formulation of the High God concept was a consequence of contemplative religious thought. The corruption of this idealism and the creation of the less pure deities he conceived as due to a "myth-making mood" and "the Old Adam" in man—the unsocial desire to obtain advantage over fellow men. In this the Supreme Being is too ethical to lend a hand; hence, ghosts, spirits, and corruptible gods were formulated in playful and erratic fantasy, which is irrational and debases the gods. Thus, to Lang early primitive man when he was in his higher mood was capable of rational philosophic thought. Yet man also expressed his baser mood of selfish desire to elaborate the pantheisms of the savage world.

Civilized religious reformers have struggled long to suppress the supremacy of the second religious mood, striving to reestablish the Supreme Deity in absolute and undefiled dominance.

The Mohammedan, Hebrew, and Christian concepts of God are of this order. But the God concept is still corrupted by petty claims for personal and tribal (national) favor by people known as civilized.

Subsequent to Lang, Radin has modified Lang's notions in a way worth noting.²⁰ He forgoes the notion of an original purity of the High God later corrupted. Instead, he posits two contrasting types of human mentality, the idealist and realist. The idealists are men of intellectual and reflective temperament, men whom anthropological experience has shown are present in small numbers among all peoples. They philosophize on the conundrum of life and the universe. Their thought seeks a direct, unified, orderly cause in explanation of the universe. The product of their thought is the Supreme Being. As idealists they are little concerned with crass material desires. Their god is free from the petty demands of men.

²⁰ P. Radin, *Monotheism in Primitive Religion*; see also *Primitive Man as Philosopher*.

The bulk of men, alas, are materialists. Their bellies, their health, wealth, and social power mean much to them. They develop religion in terms of gods and spirits, who control the means to satisfy these needs. When prayer, appeasement, and magic suffice to win the desired results, all goes well. But hunger, illness, failure, and death stalk the earth, for which the lesser gods and the forces of evil are responsible. Toward them man's emotions are ambivalent. The gods and spirits are both loved and feared. The emotional overtones of religion are mixed indeed. But taken in the main, the anthropologist cannot on the facts concur in the idealistic belief that religion in all its history represents solely man's striving for the highest values of life.

Nor is it possible to derive religion from any single mainspring of motivation. Belief in souls, fear of ghosts, fear of fear, worship of ancestors, traffic with hosts of spirits, nature worship, and philosophical reflection all play their parts. Emphasis shifts from culture to culture, but religion is a growth with many roots and many fruits.

SUMMARY

As any highly developed social institution tends to have its specialized personnel, so does the area of the supernatural. Because of the believed power of the supernatural to affect the affairs of men, religious and magical specialists exist everywhere. Shamans, those who have special power derived individually from a supernatural source, are found in all societies. Priests, those whose supernatural authority is by virtue of their position as officers in an organized cult or church, are found in societies whose cultures provide for more elaborate internal institutions.

Religious and magical cults differ in the focus of their predominant interests. They also differ in the detailed characteristics of their spirit beings, and in ritual and ceremonial practices. Ancestor worship and cults of the dead are common, but by no means universal religious forms. Deification or spiritualization of various aspects of nature produces nature worship. Fetishism occurs when a people reveres a material object for its mana, or because it is the abode of a spirit being. Cults of a Supreme Being or High God antedate Hebraic monotheism and are indigenous to many primitive cultures.

The quality of any particular religion reflects the basic value system of the society, the nature of its intrafamilial relations, its economic and political structure. If it is complex enough, as many primitive systems are, it may include varieties of all the major categories of cults that have been mentioned. Certainly, as Émile Durkheim emphasized, magico-religious beliefs and rituals symbolize and reinforce the collective solidarity of the social group.

SELECTED READINGS

- Anderson, W. H., and Dibble, C. (translators and editors): Fra B. Sahagún, *The Florentine Codex: On the Relation of Things in New Spain*. Aztec religious beliefs and practices as recorded in Nahuatl by Father Sahagún and now translated into English.
- Bascom, W. R.: *The Sociological Role of the Yoruba Cult-Group* (American Anthropological Association, Memoir 63, 1944).
- Bunzel, R.: *Introduction to Zuni Ceremonialism* (Bureau of American Ethnology, Report 47).
- Park, W. Z.: *Shamanism in Northwestern North America*. Shamanism among the primitive peoples of the Great Basin area.
- Srinivas, M. N.: *Religion and Society Among the Coorgs of South India*. A first-rate study of how religion functions in the maintenance of a social system.
- Underhill, R.: *Ceremonialism in the Greater Southwest* (American Ethnological Society, Monograph. Relates shamanism and priestly cults to food gathering, hunting, and gardening societies.

Part Four

PRIMITIVE CULTURE

H. THE DYNAMICS OF CULTURE





Sudanese natives learn railroading. Africa. (*British Information Services.*)

CHAPTER 32. Language and Culture

MANY animals can make noises; they can also communicate through sound, yet man stands alone as "the Talker." So implicit is language to the carrying on of our daily affairs, so habitual is the use of our mother tongue, that we are prone to take it quite for granted, forgetting how much effort goes into teaching the young to talk, and what a precious skill it is to be able to use any language with the highest degree of effectiveness. Further, we say we have mastered a language, but only in the present generation have we begun to have an inkling of the fact that the language we are born to in turn masters us in the sense that it irrevocably fixes many of our patterns of thought and shapes the lenses with which we must view the world in which we live.

SYMBOLIC NATURE OF LANGUAGE

Speech and language are synonymous. They consist of the production of sound waves according to particular patterns which, when they fall on the attentive ear of a listener, are transmitted into nerve impulses that register as meanings. The sound waves are formed by the speaker as symbols and they are received by the hearer (if he understands the language) as symbols. If the hearer is ignorant of the symbol system being used, he is likely to dismiss the speech as gibberish and not language at all. When he does so, he reveals his own lack of cultural sophistication, but the more important fact is that without full knowledge of the symbol system speech is devoid of meaning. Therefore, sound that does not have shared meanings for at least two people can never constitute a language. Thus, "communication, which is the very object of speech, is successfully effected only when the hearer's auditory perceptions are translated into the appropriate and intended flow of imagery or thought or both combined. . . . The concordance between the initial auditory imagery and the final audi-

tory perceptions is the social seal or warrant of the successful issue of the process."¹

THE STRUCTURE OF LANGUAGES

The sounds that constitute any language are basically phonemes, morphemes, words, phrases, and sentences.

The *phoneme* (Gr. *phōnēma* a sound) is the smallest sound unit that is used in a language. In phonetic analysis phonemes are conventionally classified into two basic categories: vowels and consonants. *Vowels* are sounds produced by the passage of air between the vocal cords without significant interference or obstruction of the air stream by the parts of the mouth, such as the tongue or lips. They are open sounds which can be sustained through a series of pitch changes; hence, can be sung. It may be noticed that all singers in practicing vocal runs use only vowels. *Consonants* consist of all the nonvowels: sound that is not a vowel is a consonant. Defined in terms of their own attributes, consonants are sounds effected by means of obstruction of the air flow after passage between the vocal cords. In the English word *hit*, there are three phonemes: *h*, *i*, *t*.² The three phonemes in combination form a morpheme (Gr. *morphē* form). A morpheme may be a simple word in and of itself, or it may be no more than a subunit in a combination of morphemes (a complex word). *Sound* is a morpheme formed of five phonemes. *Sounding* suffixes the morpheme *ing*. *Resounding* prefixes the morpheme *re*, and *unresounding* prefixes yet another. A word is the simplest unit of sound that can be uttered by itself and still convey a meaning. Thus, *sound* is both a (free) morpheme and a word. *Ing* is a bound morpheme but not a word. Combined with *sound* it becomes part of a word, *sounding*.

Any given language is built up from a small number of phonemes: ordinarily twenty to thirty. The number of basic sounds a child must learn to form is therefore not great. The number of morphemes is always much greater; and the number of words in any basic vocabulary will reach up to twenty thousand, while the full vocabulary of many languages will run well over a hundred thousand words. The principles that control the structure of words (the arrangement of morphemes) constitute the *morphology* of a language.

A language, however, is much more than a haphazard emission of words. In every language the words are related to each other in strict

¹ E. Sapir, *Language*, p. 17.

² A phoneme is not the same as the alphabetic symbols that represent it in conventional English. The *j* in *just*, for instance, consists of two phonemes *d* and *y*, pronounced dyust.

order, because the arrangement between words controls or modifies meaning. The German sentence, *Ich liebe Dich*, asserts a state of emotion. Shift the first two words to say, *Liebe ich Dich*, and you do not say "I love you," but you put it as a question with implied doubt about your emotional state. The body of rules that govern the arrangement of words in sentences so as to convey given meanings makes up the *syntax* of a language. Morphology and syntax together constitute a language's *grammar*.

Every language is bound by its own firm rules of grammar, and each speaker who wants surely to be understood must master the rules and abide by them. Language is a tyrant that does not permit much individual liberty.

A really intriguing point to note, however, is that although firm grammatical rules control the use of every language, the rules are not made by grammarians. They have been naïvely arrived at by generations of speakers who had no consciousness of what they were doing. Once their primeval language ancestors had hit on certain elemental ways of shaping and combining morphemes, the mold for the future growth of the language was pretty well set, and subsequent rules emerged by linguistic law even as the world evolved by natural law. The rules of grammar give consistency to the tongue; they integrate the use of vocal symbols. Yet, the tyranny of grammatical rules notwithstanding, no primitive man can state the rules of his grammar. He can only tell you that you must say a certain thing this way and not that. It is only the sophisticated linguist who can analyze a language into expressly stated rules. A bright informant working with a field worker may see some elemental rules for himself, however. This happened when my wife and I asked a Shoshone Indian how to say: my house, his house, her house, our house, their house. *Gani* is the morpheme for house. In our informant's responses each word contained *ngani* preceded by a variety of personal pronoun prefixes. As we wrote down the words, a great light dawned upon him and he excitedly exclaimed, "Say! That *n* in there must mean that something belongs to someone." On being assured that this was indeed so (he had discovered the possessive infix), he marveled, "Well, what do you think of that? Here I've been talking Shoshone all my life and I never knew that *n* in the middle of a word means it belongs to someone."

The rules of a language are unconsciously obeyed by its speakers. The normal way to learn any language is to become habituated to its unformulated rules through use of the language, not by learning rules.

The morphologic rules that govern phonemics vary from one group of languages to another. Bantu languages build many words beginning with *ng* (for instance, *Ngbatu*). English has not a single word starting so; it is

against our rule, which is that *ng* may be used only at the end of a morpheme. Similarly, no language incorporates all the phonemes that are in use among all the tongues of mankind. To break through the strongly fixed motor habits used in forming our own speech in order to pronounce anything different is what makes it so difficult to pronounce a foreign language like a native. The difference between our *z* and *th* is only the matter of a few millimeters in the placement of the tongue. In *z* the tip rests against the lower edge of the gums of the upper dental arch. In *th* it is against the teeth themselves. But how many English-speaking Frenchmen never succeed in mastering that little shift!

Grammatical structure is so complex (although the degree of complexity may be greater or less from one language to another) that it is best not even to attempt a comparative analysis in detail in a general introduction to anthropology. Without writing a whole handbook on the subject we could not get far enough to make it worthwhile. All that can be attempted here is to focus the reader's attention on the nature of the building blocks that go into the foundations of any linguistic structure.³

HISTORICAL LINGUISTICS

The origins of languages are lost in the distant past. The spoken word turns not to stone and leaves no remains for the archaeologist to unearth from Eolithic or Paleolithic site. Writing comes into being only after eons of language building have lapsed into the past. Words finally transcribed to stone or clay tablet, to papyrus, skin, or paper are concrete manifestations of languages already millennia old.

Because all the peoples we can study have a developed language, there is no available way to reconstruct the multiplex processes by which a people hit upon agreement as to what grammatical principles they will begin with. But languages, in spite of their inherent stability, inevitably change through time. Scientific study of the patterns of change in given languages is possible and feasible. This may be done in two ways. Once a language is committed to writing, the changes that occur may be followed through a sequence of documents. The other approach is to push the history of related languages back into prehistoric times through internal analysis of homologous languages. The major principle underlying this second method is similar to that used in reconstruction of organic phylogenies: namely, that forms which have in common a number of functionally similar qualities greater than the level of chance occurrence are genetically related.

³ It will be worth any student's time, however, to examine with close attention the detailed identification of the building blocks of grammars prepared by B. L. Whorf. See J. B. Carroll (ed.), *Language, Thought, and Reality*, "Language: Plan and Conception of Arrangement," pp. 125-133.

In historical linguistics the criteria used are morphemic and syntactic identities. The quickest way to get an indication as to whether or not two languages are related is to compare their vocabularies (word forms). By sheer chance, under the law of limited possibilities, they will possibly have some words in common. Nothing is so puerile as to argue that two tribes are related because it is possible to cite a handful of words that they share. There must be a concurrence in a significant number of words and their associated meanings.

What constitutes significance? Two languages that are clearly unrelated and also phonemically unlike in structure will ordinarily share only 4 per cent of their total terms in like form and meaning. If it happens that the phonemic structure of morphemes in the two languages is similar, then the concurrences may double this figure. It is therefore safe to hold that vocabulary identities of less than these percentages may be the product of nothing but chance, and the identities may not be taken as evidence of historical relationship. Conversely, it is the considered and well-supported judgment of linguists, as expressed by the American expert Prof. Joseph Greenberg, that, "It can be safely asserted that a resemblance of 20 per cent in vocabulary always requires a historical explanation and that, unless a similarity of a high degree of phonetic structure leads to the expectation of a high degree of chance similarity, even 8 percent is well beyond what can be expected without the intervention of historical factors."⁴ By means of mathematical comparisons among three or more languages, it is possible to work out even sharper determinations of possible genetic relations along the lines just indicated.

Languages are apt to include a large number of words borrowed from other languages (e.g., in English, *totem*, *canoe*, *tobacco*, *tabu*, *automobile*, etc., etc.). Fundamental words such as pronouns and those representing parts of the body are most likely to retain their identity with the morphemes of their ancestry. Free borrowing from unrelated languages occurs more commonly in what are called the *cultural* (nonpersonal) *items*. Therefore, when the linguist is confronted by a group of languages that exhibit similarities greater than chance probability in their fundamental vocabularies, while at the same time lacking similarities in their cultural vocabularies, he is certain that these languages were remotely derived from a common ancestor. If they had only recently come into contact with each other, the one would have borrowed words from the cultural vocabulary of the other before it would displace its own fundamental words with those from an alien source. Thus another device for establishing historical relations between languages is available.

In making such surveys, the linguist comes to recognize identities be-

⁴ J. H. Greenberg, "Historical Linguistics and Unwritten Languages," in A. L. Kroeber (ed.), *Anthropology Today*, p. 270.

tween different phonemes in related languages that the layman easily overlooks. In the case of Indo-European languages, they are expressed by the famous *Grimm's Law*. Latin and English are Indo-European languages; both are derived from an ancient proto-Indo-European tongue millennia old. In words retained in both languages—words of Indo-European origin—the Latin word which begins with *p* begins with *f* in English (e.g., L. *pes* foot). Simultaneously, a Latin morpheme ending in *d* terminates, in English, in *t*, as exemplified in *ped* and *foot*. Other regular modifications are demonstrable among the numerous Indo-European tongues, and similar types of relationships have been established for many other language groups.

What this means is that in comparing vocabularies for identities, exact phonemic similarity is not expected. The linguist, however, comes to recognize phonemic correlates that should be treated as identical. In cases where written documents extending over a number of centuries are available for related languages, it is possible to validate directly the specific functioning of the law.

Finally, languages may be related by comparison of their syntaxes. Thus an isolating language, like Chinese, which sets up its words as simple monosyllables, is hardly likely to be related to such an extremely polysynthetic language as Eskimo, which builds up single words with as many as a dozen or more morphemes. More refined criteria, such as presence or absence of gender, inflection, etc., are also relied on.

Careful use of such methodological devices enables linguists to group most of the world's languages into families and stocks and also to reconstruct the essentials of ancestral languages long since dead. In this way, another aspect of the histories of human societies may be reconstructed up to a point.

Thus, although the Cheyenne Indians live far out on the western Plains, because their language is Algonquian, we know that they are an offshoot of the great Algonquian group of tribes that dominated the north-eastern part of North America. The linguistic fact confirms Cheyenne legend that they came from the vicinity of a great body of water in a wooded land to the east. The fact that the Navahos and Apaches speak Athapascan dialects leads us to look for their original homeland far to the north in the woodlands of the MacKenzie-Yukon basin of western Canada, where all the tribes speak Athapascan.

GLOTTOCHRONOLOGY

The use of radioactive carbon counting as a means of reading the built-in "time-clock" for the dating of archaeological sites is certainly one of the really exciting techniques developed since 1947. Equally exciting,

and in its newness even more amazing, is the method developed by the American linguists, Swadesh and Lees, for calculating the approximate time for the divergence of two dialects or languages from a common mother tongue, thus to establish the date at which the speakers of the dialects separated from each other. The fundamental premise of the method is that the fundamental vocabularies of language change at a given rate. This rate has been calculated on the basis of documented changes in a number of historic (written) languages as producing a replacement of terms in the fundamental vocabulary at the rate of 19 per cent in a thousand years. Thus, if two related languages show a difference in 38 per cent of their basic vocabularies, it is estimated that the people who speak these languages separated from each other two thousand years ago. In several applications of the principle, the dates derived through glottochronology coincide nicely with C¹⁴ dates from the archaeological sites of the presumed ancestral populations.

LANGUAGE AND CULTURE

Every language is in itself a cultural phenomenon. Obviously, no one can speak instinctively. Language has absolutely nothing to do with biological inheritance, and therefore there is no inherent relationship between race and language. If, as is the case, certain languages are spoken only by the members of a given race, it is only because the racial population, having been isolated from other populations, developed its own mode of speech. Once the isolation breaks down, this need no longer be the case. The sixteen million American Negroes speak English, but their ancestors of one and two centuries ago spoke only one or another of the African Negro languages.

The fact that it is extremely difficult for English speakers to master some of the phonemes of other languages—phonemes that are used with ease by native speakers—does not mean that the native speakers have a natural proclivity to produce such sounds. It merely means, providing the adage is not taken too seriously, that “you can’t teach old dogs new tricks.” Once vocal habits are set, they become so firm that to break out of their grooves is quite a task to accomplish. There is nothing in the physical structure of the members of any race, however, that makes certain populations genetically suited to the pronunciation of some phonemes and not others.

Therefore, if the question is asked, “What is the relation between race and language?” the answer is “None.” On the other hand, if the question is put, “What is the relation between culture and language?” the answer is “Plenty.” But in what ways?

All languages are sufficiently expandable and flexible to make it pos-

sible for the members of any society to communicate the things they are interested in.

The fundamental groundwork of language—the development of a clear-cut phonetic system, the specific association of speech elements with concepts, and the delicate provision for the formal expression of all manner of relations—all these meet us rigidly perfected and systematized in every language known to us. Many primitive languages have a formal richness, a latent luxuriance of expression, that eclipses anything known to the languages of modern civilization.⁵

It has already been noted in the discussion of subsistence techniques that the Aymara Indians of Bolivia and Peru have over 200 words for *potatoes*. Anthropologists are always fond of pointing out that Eskimos have a large number of words for *snow*, each denoting snow of a particular state of being, such as softly-falling-snow, dry-wind-driven-snow, drifting-snow, powder-snow, wet-packed-snow, dry-packed-snow-suitable-for-cutting-into-blocks (for iglu building), ice-crust-surface-snow, and still other conditions of snow. It is perfectly true that we can linguistically express different conditions of snow through the use of modifiers, but the point is that Eskimos, whose very survival depends upon snow conditions, do not view snow as “crystallized water vapor” or “that beautiful white fluffy stuff that falls from the sky on some cold days,” but rather as a series of *different* substances with nice refinements of distinction.

In our own equestrian subculture of cowboys a comparable example exists. To most eastern city dwellers a horse is a horse. Not so to the cowpoke. It is a mare, stallion, or gelding in denotation of its sex; a grey, sorrel, piebald, strawberry roan, palomino, or white face, in denotation of its color. To return to snow: the American city dweller does recognize snow, sleet, and slush as three distinctly different linguistic categories for snow in different states of being—because this much, and no more, is culturally significant to his comfort and well-being. Since the birth of wide popular enthusiasm for skiing that began in the United States around 1935, an Eskimo type of skier's vocabulary for snow has been borrowed from the Austrian Tyrol—because the state of snow is important to ski culture. Hence, *Pappschnee* (wet, heavy snow), *Kornschnee* (barley snow that has melted under spring sunshine and frozen at night), *Pulverschnee* (powder snow), *Fernschnee* (broad expanse of breakable crust), etc.

The basic principle illustrated by these examples is that every language is adequate to express the needs of its culture. As the culture expands, the language expands. If the belief or knowledge system embodied in the culture requires the expression of abstract ideas, the language will provide the means of getting those ideas across, regardless of the syntax the

⁵ E. Sapir, *Language*, p. 22.

language happens to use. If anyone still has the notion that was so common in the nineteenth century, that primitive languages are childlike and inherently incapable of handling complex thoughts and ideas, this error should be nailed and nailed hard. It is as false as the canard that was launched by the famous U.S. Army Captain John G. Bourke, who wrote in the impeccably scientific Bureau of American Ethnology Reports that the language of the Apache Indians is so deficient in vocabulary that its speakers have to use gestures and signs to get their meaning across and consequently they cannot converse at night unless around a campfire.

Every language is adequate to the needs of its culture in so far as the members of each society can communicate to each other the ideas and feelings which their culture makes it possible for them to have. But the very structure of a language subtly molds the way in which a people can conceive of the nature of the world in which they find themselves. Philosophically, we know that man's idea systems are the screens through which he perceives reality. We have seen in Chapter 10 how the basic postulates of each culture provide the assumptions of the general nature of things with which the members of this society and that view nature and themselves. Taken together, culture at large and language in fine mold the multiple lenses through which men view the world in which they are immersed. Indeed, as Edward Sapir was one of the first to perceive in a real sense, "Language and our thought-grooves are inextricably interwoven, are, in a sense, one and the same."⁶

How does this identity of language and thought-grooves become manifest?

English and Indo-European language speakers confront time as a divisible something that divides itself "naturally" into a past, the present, and a future. Until Einstein pushed the special language of mathematics and physics into a new sphere not to be dealt with by any conventional Indo-European language, time could not be thought of by any of us in any other terms.

Benjamin Lee Whorf, a chemical engineer professionally engaged as a fire-prevention engineer, became concerned with the problem of how English words betray people into burning down buildings. From this he went on to demonstrate how Hopi, for one language, creates an entirely different sense of time. But before we take a short look at Hopi time-sense, you may wish to know how language can cause fire. One example in Whorf's own words will do:

In a wood distillation plant the metal stills were insulated with a composition prepared from limestone and called at the plant "spun limestone." . . . After a period of use, the fire below one of the stills spread to the "lime-

⁶ Sapir, *op. cit.*, p. 232.

stone," which to everyone's great surprise burned vigorously. Exposure to acetic acid fumes from the stills had converted part of the limestone (calcium carbonate) to calcium acetate. This, when heated in a fire, decomposes, forming inflammable acetone. Behavior that tolerated fire close to the covering was induced by use of the name "limestone," which because it ends in "stone" implies noncombustibility.⁷

In his study of the Hopi language, Whorf's analysis shows that Hopi verbs have no tense—no past, present, or future: no beads of time on a string of infinity, only validity forms, aspects, and clause-linkage forms. Of validity forms of Hopi verbs there are three: that which denotes that the speaker *reports* a completed or an on-going event; that the speaker *expects* an event will take place; that from his experience he *knows* the event is a regular thing. Aspect forms of Hopi verbs report the relative length of time an event lasts; clause-linkage forms relate two or more verbs to each other in terms of "later to earlier and of simultaneity" (are they happening together or before or after each other?).

What is meant by *validity forms*? In a situation in which one of us sees a person run, we say, "He is running," a sentence in which the temporal *is* is important to our way of thinking (only an infant or a moron would say, "He running"). The Hopi, for his part, says, "wari," which means "running." Next—when we have just seen a person run, we say, "He ran." The Hopi says, "wari," which means "running." There is no difference between "wari" as running now and running that is just recently over. "Wari" is a *statement of fact about running*. That is all. But now comes a difference. If we saw a person run yesterday, we still would say, "He ran." The Hopi says, "era wari," or "remembered running." If the running is to take place in the future, we say to report this event, "He will run," thus putting it in another time category. Not so the Hopi. He still uses his timeless "wari," adding to it the suffix *kni*, to denote expectancy: "warikni," or "running expected." Finally, our own time grammar breaks down egregiously when we are confronted with the problem of timeless running, when we have to give expression to past, present, and future running all in one breath. We fall back on and do violence to our present tense by saying, "He runs," when reporting the activity of a track star, who may in fact be snoring in his bunk at the moment the statement is made. To cover this exigency the Hopi, because he has no tense commitments, says with much greater accuracy, "warikngue," or "running regularly occurs."

The Hopi language is also constructed without masculine and feminine genders; everything is neuter. A Hopi therefore has no linguistic compulsion to dichotomize things like ships ("She's a beautiful tub") into

⁷ Whorf, *op. cit.*, pp. 135-136.

masculine or feminine images. Here, again, appraisal of the real world is differently effected, largely because of mental habits formed by the nature of grammatical structure.

One more example of this principle will now be offered; this time it will be a reference to Shawnee, an Indian language spoken in the South-east Woodland area of the United States.

Whorf confronts us with two English sentences:

- (1) I push his head back.
- (2) I drop it in the water and it floats.

The acts performed according to these two statements are quite unlike. In (1) the physical act is presented as the exertion of a force: subject → force → object. In (2) the emphasis is on an attribute of the object (it floats).

Shawnee language is so structured that in describing these same two events the Shawnee Indian sees and thinks of them in terms of similarity. How? To tell what happens in the first situation he says:

1. <i>ni</i>	<i>kwaškwi</i>	<i>tepē</i>	<i>n</i>	<i>a</i>
I	push back	on the head	by action of the hand	cause to a person

To tell what happens in the second situation, the Shawnee says:

2. <i>ni</i>	<i>kwašk</i>	<i>ho</i>	<i>to</i>
I	push back	at the surface of water	cause to an inanimate thing

Literally translated, (1) means, "I cause the head of a human being to be pushed back by action of my hand." Similarly translated, (2) means, "I cause an inanimate thing to be pushed back at the surface of water." Pushing against, a reverse force, is what Shawnee grammar induces the Shawnee speaker to see in *both* situations; not pushing and floating as separate phenomena. In this the Shawnee grammatical approach to what takes place is closer to the reality of the situation, as any student who learned Archimedes' Principle in high-school physics knows, but ignores, when he utters the two unlike sentences to tell what happened in the two occurrences just analyzed.

In other words, it is not always that "sentences are unlike because they tell about unlike facts" (although, of course, in some situations other

than heads being pushed and something floating, they may be unlike in fact). It may be that: "Facts are unlike to speakers whose language background provides for unlike formulation of them."⁸

SUMMARY

Language is an exclusively human achievement, the essence of which is the transmission of symbols for which there is agreed meaning to the sender and receiver. The effect is communication of ideas and states of feeling. Language is preponderantly a process of vocal transmission and auditory reception. Auxiliary gesture symbolism may also be used and, in unusual instances, such as Plains Indian sign language, may serve as a limited substitute for the more basic vocal-auditory language. Phonetic writing is an auxiliary visual symbol system of communication in which pictograms, hieroglyphs, or letters serve as symbols of symbols (sounds).

The sound elements of languages consist of phonemes, morphemes, words, and sentences. *Phonetics* is the study of the sounds used in languages. The phonetic elements of any language are always arranged in a structural relation to other sound elements according to strict rules of order. The principles that govern the arrangement of sounds in the formation of words constitute the *morphology* of a language. The principles that govern the arrangement of words in a sentence constitute the *syntax* of a language. Both together constitute the *grammar*.

The languages of even the most primitive people always reveal sophisticated syntax development—sometimes even bewilderingly more complex than English or any other European language. For language is the essence of *capacity for culture*; the ability to produce it is so essential to even the first steps in culture creation that man, however he managed it, *had to* achieve linguistic precocity as a *sine qua non* for any humanness whatsoever. This means that although we may speak of "primitive languages" in reference to the languages of primitive people, it is wrong to think of such languages as backward or undeveloped. Nor can any inherent relationship be found between race and language.

We have no way of knowing how or by what steps any language was first formed. Historical linguistics has, however, developed methods for reconstructing the course of change in a number of language families (particularly Indo-European) from a hypothetical original (proto) language. Languages which show morphemic and syntactic similarities greater than calculated chance probability are classified as historically derived from a common source. Linguistic evidence of this kind is valuable in reconstructing the broader culture histories of specific tribes and

⁸ Whorf, *op. cit.*, p. 235.

nations. A new device for calculating the time of separation of two related languages is being developed in *glottochronology*.

Each language is sufficiently flexible and adaptable to allow its speakers the means of giving expression to their cultural interests. The study of non-Indo-European languages, begun under the leadership of Franz Boas among American Indians, reveals the existence of syntactic principles utterly different from those long familiar to orthodox language scholars.

Edward Sapir first revealed the implications of this fact in 1921 and Benjamin Whorf pioneered in specifically demonstrating that "the structure of the language one habitually uses influences the manner in which one understands his environment. The picture of the universe shifts from tongue to tongue." Thinking, how people perceive and analyze *the* world and *the* universe, is relative to the language they are accustomed to use. *Their* world and *their* universe are the products of the cultural lenses through which they must perforce squint to gain a glimpse of the Great Cosmos.

SELECTED READINGS

Bloomfield, L.: *Language*. A solid introductory treatment.

Carroll, J. B.: *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf*. Whorf's original essays in metalinguistics in a readily available form.

Lee, D.: "Being and Value in Primitive Culture" (*Journal of Philosophy*, Vol. 46, 1949), pp. 401-415; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 283-295. The linguistic expression of Trobriand conception of being.

Malinowski, B.: "The Problem of Meaning in Primitive Languages," in *Magic, Science and Religion: and Other Essays*, pp. 228-276.

Sapir, E.: *Language*. A small and lucid book of tremendous influence and importance.

CHAPTER 33. Personality and Culture

As a culture is the integrated system of learned behavior traits characteristic of the members of a society, a personality is the integrated system of behavior traits characteristic of an individual.

DETERMINANTS OF PERSONALITY

Early in the development of the social psychology of personality, Kimball Young framed an analytical scheme of personality determinants embracing three main categories: (1) the constitutional characteristics of the individual, (2) the culture under which the individual lives, and (3) the unique social experience of the individual. These compounded together fuse to form the person.¹

Morphological factors directly influencing personality are stature, weight, and physical appearance. The personality of a dwarf cannot be that of a giant. Always we keep in mind, however, that the social meaning of a physical characteristic is culturally determined. We expect big men to be dominant in ascendant-submissive relations.

In further illustration of this point we may contrast the situation that exists among ourselves and the Trobrianders with respect to identification of physiognomy among kinsmen. Every newborn babe hereabouts is carefully evaluated by relatives and friends to see whether it looks like its mother or father, or this uncle or that aunt, or this grandfather or that grandmother. We have an obsession to find points of resemblance to kinsmen. Maternal kinsmen project maternal identities upon the infant. Paternal kinsmen project their counterparts. If the physical traits are quite definitely identifiable with those of one line or the other, the stimulus value is quite marked and the role behavior is definitely influenced one way or the other.

¹ K. Young, lectures in *The Individual and Social Adjustment* at the University of Wisconsin, 1927.

In the Trobriands, on the other hand, the dogma of the culture is that children do not and cannot resemble their mother or her kin. To hint as much is offensively bad taste. Yet resemblance to the father is always assumed and affirmed. Physical aspects of the father's personality, but not of the mother's, are thus transferred to the children. (Of course, a great many of the mother's traits are transferred to her children in association and learning.)

A queerer quirk in Trobriand culture is the suppression of perception of physical similarity between brothers. When Malinowski suggested, apropos of some Trobrianders' remarks on how much a group of brothers looked like their father that it followed from this that the brothers must then look like each other, the natives made it plain enough how crude they thought his manners were to make such a gauche remark.²

It may well be that certain kinds of temperament and body types tend to go together. The notion is deep in our folk beliefs.

Let me have about me men that are fat;
Sleek-headed men and such as sleep o' nights;
Yon Cassius has a lean and hungry look;
He thinks too much; such men are dangerous.

Redheads have fiery tempers. Blondes are dizzy. Fat men are jolly. But are they? Among anthropologists, Profs. Ernest Hooton³ and William Sheldon⁴ have been leaders in a vigorous effort to put the issue to the test of science. Hooton measured and classified American prisoners and compared their bodily traits with those of a sample of the noncriminal population. He concluded as a result of his findings that men of distinctive types of body build have an affinity for certain types of crimes. Sheldon made a major contribution through the development of a photographic method in which the subject stands before a grid background; relative measurements may then be taken from the photo so that the individual may be typed for body form with relative ease. Much less successful has been Sheldon's attempt to develop a scale for classification of temperament which could be examined for association with specific body types.

That definite psychological correlations to distinctive body types exist seems to be likely enough. Yet in spite of the brave efforts of the Hootons and Sheldons the technical problems of scientific demonstration have not yet been sufficiently mastered to allow us to say with any degree of confidence what they may be in detail.

² B. Malinowski, *The Father in Primitive Psychology*, pp. 87-92.

³ E. A. Hooton, *The American Criminal*.

⁴ W. H. Sheldon and S. S. Stevens, *The Varieties of Temperament*; also W. H. Sheldon, S. S. Stevens, and W. B. Tucker, *The Varieties of Human Physique*.

The cultural determinant sets the pattern and limits for normal behavior within a given society. It will be discussed specifically and in more detail later on in this chapter.

The third factor is the unique personal experience of the individual's life history. Not all phases of the society's culture are open to all persons. Differences in status mean differences in social opportunity and experience. These mean differences in status roles and personalities. Even more important, however, is the fact that persons of identical status never have the same experiences. The mother prefers one child over the other. One child burns his finger, another does not. One woman has an auto accident, another does not. One infant falls in the river, another does not. No two persons ever have the same social experience, not even identical twins. From psychoanalysis we have learned how important the fortuity of history can be in shaping the direction of personality development.

Culture tends to standardize personalities by channeling the experience of all individuals along the same broad stream. But life is made up of so many instances, so many situations, such rich variety of experience, that absolute standardization is never realized and never will be.

Personality, therefore, is seen as the behavioral synthesis of the individual's physical (including neural and glandular) constitution, the patterns of his culture, his contact with those patterns, and his moment-to-moment experiences with people and things.

The Kluckhohn-Mowrer Classification of Personality Factors. Kluckhohn and Mowrer have elaborated Young's type of analytical scheme into a logically exhaustive set of categories.⁵ The Kluckhohn-Mowrer scheme recognizes the biological, cultural, and social determinants of personality, and adds a fourth: the physical environment. Whether one lives in a desert or a tropical rain forest makes a difference. The criterion for this classification of personality determinants is, therefore, *level of natural order*.

The really new development in the Kluckhohn-Mowrer scheme, however, is the addition of four cross categories of determinants based upon the criterion of *degree of universality among human beings*. The four determinants based upon this principle are: (1) the *universal*,⁶ those determinants which are relatively constant for all mankind, whatever the environment, whatever the culture, whatever the race; (2) the *communal*, those determinants which are relatively constant and unique for all the members of a given society as against the members of other societies; (3) the *role*, those determinants which are linked to different statuses within

⁵ C. Kluckhohn and O. H. Mowrer, "Culture and Personality" (*American Anthropologist*, Vol. 46, 1944), pp. 1-29.

⁶ Not to be confused with universals in cultural norms.

a society; and (4) the *idiosyncratic*, those determinants which are uniquely individual, either in constitution or life history.

Combining the eight determinants gives us fifteen major components of personality as presented in the table on page 576.

The advantage of the elaborated Kluckhohn-Mowrer scheme points the way for sifting out "group personalities." Thus the universal determinants, which apply to all mankind, produce what there is of human nature the world over. The communal traits lead to national or societal character types. The role determinants shape the distinctive personalities of persons belonging to various age, sex, occupational, class, and caste groupings within societies. The idiosyncratic determinants guarantee the uniqueness of every individual as long as men shall endure.

CHILD TRAINING AND PERSONALITY

"As the twig is bent, so grows the tree." A major factor in the development of the child as a person is the accumulation of innumerable pressures, most of them subtle, others not so subtle, that shape its images and feel of the surrounding world. In accord with these understandings it strives to act. The child's feel of the world and its gradually growing perception of what that world will give and what it demands serve as its guides for getting on.

Fig. 33-1. Enculturation of Navaho children. (*Harvard Values Study, Life, photograph by Leonard McCombe.*)



The Components of Personality *

DETERMINANTS BASED ON DEGREE OF UNIVERSALITY AMONG HUMAN BEINGS				
Determinants based on level of natural order	UNIVERSAL	COMMUNAL	ROLE	IDIOSYNCRATIC
	Cultural	Incest tabu, kinship systems, property, magic, religion, housing, time reckoning, etc.	Special forms of kinship, property, magical and religious beliefs, etc.	Special roles culturally differentiated for status groups within each society
	Social	Group life, child care	Size, distribution, density of population, etc.	Play groups, congeniality groups, cliques, etc.
	Biological	Birth, death, hunger, thirst, metabolic action, skeletal-muscular structure, basic drives, etc.	"Racial" variations of universal traits, health conditions of society at large, etc.	Age and sex differences, racially based class and caste
	Physical environmental	Atmospheric pressure, gravity, earth, sun, moon, stars, clouds, water, wind, precipitation, etc.	Local climate, topography, wild plant and animal life, other natural resources, etc.	Individual peculiarities of stature, physiognomy, glandular functions, etc.
			Differential access to material goods by different status groups	Unique relations to flood, storm, lightning, and other physical phenomena

* Modified from Kluckhohn and Mowrer, *op. cit.*, Fig. 1, p. 4.

All these have to be explored and tested. At the instant of birth the world is nothing for the newborn infant. It is sensed only as a rude and sudden change from the all-encompassing perfection of the womb to the coldness of the air that first strikes it. Its first response is a wail and not a laugh.

The world that awaits the child is a world of people already set with their multitude of cultural prejudices on how to behave, people with culturally colored emotions, expectancies, and anxieties. It is a world of many physical things, some beneficially essential to human existence, some inexorably destructive, some now one and again the other. Of these the infant is blankly ignorant. Of all these he must in time become knowledgeable. His personality will be the sum of the knowledge he acquires and how he uses it.

Investigations of human adults show that their behavior consists of patterns derived from processes of conditioning in early childhood. Furthermore, some of these patterns are of such a nature that they may be called *character traits*.

Under ordinary circumstances the child's first experience, and for some time thereafter, is in the primary conjugal family. This is his world. Margaret Mead, for one, has shown how this world differentially puts the imprint of its finger on him.

The Arapesh [of New Guinea] treat a baby as a soft, vulnerable, precious little object, to be protected, fed, cherished. . . . When the mother walks about she carries the child slung beneath her breast in a bark-cloth sling, or in a soft net bag in which the child still curls as he curled in the womb. Whenever it is willing to eat . . . it is fed, gently, interestedly.

Among the neighboring Iatmul head-hunters,

From birth the baby is handled as if it were a separate little entity capable of a will of its own. . . . As soon as the Iatmul child is a few weeks old, the mother no longer carries it everywhere with her . . . but instead places it at some distance on a high bench, where it must cry lustily before it is fed. . . . The sense of the mouth is built up as an assertive, demanding organ, taking what it can from a world that is, however, not unduly unwilling to give it. The child learns an attitude towards the world: that if you fight hard enough, something which will treat you as strong as itself will yield—and that anger and self-assertion will be rewarded.

And again:

The Mundugumor [another New Guinea tribe] women actively dislike childbearing, and they dislike children. Children are carried in harsh opaque baskets that scratch their skins, later, high on their mother's shoulders, well away from the breast. Mothers nurse their children standing up, pushing them away as soon as they are the least bit satisfied. . . . Here we find a character

developing that stresses angry, eager avidity. In later life love-making is conducted like the first round of a prizefight, and biting and scratching are important parts of foreplay.⁷

Child training encompasses a good deal more than consciously directed education. As a biological organism each individual is moved by a mass of impulses or drives. Many of these are innate, i.e., inherent in the neuro-physiological make-up. They are raw, instinctive urges to action. Freud summed them all up as the *id*. Basic drives consist of internal tensions, a physiological state of unrest producing an urge to action. Those drives that lead to food seeking are labeled "hunger drives." Other basic intake drives are those centered on air and liquid (more specifically, water). Behind these drives are basic needs. If the drive-motivated activity fails to achieve the imperative intake, the organism is destroyed. It ceases to live and begins its decomposition toward its ultimate residue of inorganic compounds—"ashes and dust." Satisfaction of the basic needs is therefore an inescapable prerequisite to the continued life of the organism. Temporary dissatisfaction produces the discomfort that is felt as a drive. Prolonged dissatisfaction builds the discomfort to pain. Babies first get restless; then they howl. Adults may learn to bear the pain in stoic silence or to get relief in the fantasy of imagined food or drink, but this only alleviates the pain; it does not cancel out the fact that the need must ultimately be met.

Other basic drives center on elimination of bodily wastes: the defecatory and urination drives.

The third category of basic drives centers on temperature control. There are limits to the tolerance of the human body to extremes of heat and cold. When external conditions approach such extremes, the individual is moved to reduce them by migration to more equable climes, through procurance of clothing, building of shelters, use of fire, seeking of coolants, or the intake of special foods or drink. If it gets too hot or too cold, the organism is reduced in efficiency until death comes by means of heat prostration or freezing.

A fourth set of basic drives is summed up in sex. In its crudest form this is expressed in genital excitement, but of course the sex sensations are much more diffuse than just that. The sex drives are powerfully sensational, but as far as the individual is concerned their gratification is not directly necessary to survival, as are the other basic drives. Their direct gratification is essential to the reproductive survival of the group, however. The major contribution of psychoanalysis has been the demonstration of the manifold but not manifest significance of individual experience in the

⁷ M. Mead, *Male and Female*, pp. 65, 68-69.

adjustment of the sex drives to the conditions of social living. The energy generated by the *id* impulses was called *libido* by Freud.

Except for the air drive, the ways in which the need may be satisfied are always limited and standardized in every culture. No society permits its members to eat any which way at any old time. No society permits its members to urinate and defecate whenever or wherever they get the urge. Sphincter control is always demanded. Our considerations of incest and preferential mating have already shown how universally important is social control of the sex drive.

Each person has to learn what kinds of responses to drive pressures lead to goal achievement and satisfaction of his needs. Antisocial responses—culturally prohibited behavior—are punished through social efforts to block them. The individual must learn to inhibit his impulse to act in prohibited ways and to habituate his behavior to culturally indicated ways.

The total process is called *enculturation*. It involves the adjustment of individual impulses to the standards of permissibility set in the culture. The well-adjusted personality is the one that successfully balances his personal urges to the allowable expectancies of his social environment.

In the Freudian scheme of things, the individual's perception and understanding of his society's norms and standards are identified as his *superego*. The primary conception of the superego exists for the child in the image that it forms of its parents. Other images for guidance of conduct are found in aunts, uncles, headmen, shamans, playmates, etc.

Human life is lived in a state of continuous tensions that may only be minimized, never permanently eliminated. The battle between inner urge and the channeled limitations allowed by culture is unending. "Inner psychic conflict would seem to be of the very essence of man."⁸ Maturity in personality represents an acceptance of the terms according to which life can and must be lived in any given society. When a growing child has adjusted his behavior to the patterns of his culture, when its pertinent values, beliefs, and modes of action have become a normal part of his thinking and behavior, he has *internalized* his culture and has become thoroughly enculturated. His personality has matured.

Along the way he will have acquired many drives and attendant goals that were not in him at birth. These drives are not basic but are, rather, acquired or secondary. They are extensions of a more elemental need for warm social response. The goals are culturally symbolized in the social rewards that go with prestige status. Most men in most societies struggle to achieve and shape their personalities in accord with the demands of

⁸ A. I. Hallowell, "Psychological Leads for Ethnological Field Workers," in D. Haring (ed.), *Personal Character and Cultural Milieu*, p. 296.

such acquired drives with as much intensity of action as the basic drives evoke.

PRIMITIVE EDUCATION

Education as opposed to child training implies the more formal efforts of adults to mold the personalities of the young, but among primitive peoples the gap is nowhere as great as it is with us. Primitives never make an issue over "education for life," as do our school people. In a tribal group education *is* life. Father does not work in a factory or office the child never sees. The child is not shut up in a school away from the home for hours, days on end. In the simple camp or village he is around and underfoot while all the fundamental activities of adult life take place. He can play with bow and arrow until old enough to tag along on the hunt and learn by precept in action just how it is done. He can play around the older boys who are watching the herds, until he is ready to herd himself. He can see and imitate the dancers until he himself is admitted to the dance. He can listen to the tales of tribal lore and myth as they are told until he knows them by heart. Most knowledge comes as a by-product of living, with one or another of the family members as a natural, nonprofessional instructor. And much is learned from play with other children who are just a bit older.

Formal learning is usually limited to the more esoteric or specialized aspects of religion and magic. Where tribal initiations are held, they almost invariably involve formal instruction in these affairs.

An example of the scope of such initiation education, from among the Tswana, is provided in the following paragraph by Professor Schapera:

. . . All the eligible boys were initiated simultaneously in groups, kept secluded in one or more special "camps" (*mephatô*) away from all the villages for three months or so. The details of the ceremony were kept a profound secret from women and all other non-initiates, who were forbidden under penalty of severe assault and even death to approach too near to the camp. At the camp the boys were first circumcised in order of tribal precedence. They were then systematically taught a number of secret formulae and songs, admonishing them to honour, obey, and support the Chief; to be ready to endure hardships and even death for the sake of the tribe; to be united as a regiment and help one another; to value cattle as the principal source of livelihood, and so herd them carefully; to attend the *kgotla* regularly, as this was the place for men, and to look after its fire; to honour and ungrudgingly obey old people; and to abandon all boyish practices. Much of this instruction dealt also with the important topic of sex, the boys being taught the physiology of sex relations, the duty of procreation and other rules of conduct in married life, and the dangers of promiscuous intercourse with ritually "unclean"

women. They were further taught tribal traditions and religious beliefs, and the tribal songs of war and self glorification, and were made to participate in symbolic dances of many kinds. They were, moreover, subjected to starvation and blows, discomfort and actual torture, and rigorous and irksome taboos of many kinds, and were made to participate in strenuous hunting expeditions, all with the object of hardening them.⁹

The rituals of priests, and often of shamans, must ordinarily be taught on an apprenticeship basis, for these are frequently so complex, as well as being secret knowledge, that they can be imparted only with strict attention under isolated conditions.

On the whole, it is safe to say that primitive children find their education less irksome than do ours. It demands less of them, and they can readily see the utility of what they learn, because its usefulness is all about them in everyday living. They use their knowledge as they acquire it; they do not have to learn in a vacuum things that they will not have a chance to put to use for some years to come—or maybe never.¹⁰

THE CONFIGURATION OF CULTURE AND THE IDEAL PERSONALITY TYPE

The central thesis of Ruth Benedict's famous approach to this problem is that the ideological contours of a tribal culture are impressed upon individuals in an ideal personality type. Each society has a more or less clear idea of what constitutes the good man, the kind of man a person ought to be. The precepts, maxims, rewards, and punishments doled out by the *publicum* are directed toward molding all men in the image of the ideal. He who approximates the ideal is an object of social censure. The character of this ideal personality is equated with an abstracted tribal character structure. Or, when the method developed for analysis of primitive peoples is transferred to civilized societies, the collective ideal personality type becomes the "national character."¹¹

Like culture, the ideal personality type is a construct. It suffers from the same dangers of oversimplification that we discussed in connection with the configuration concept in Chapter 10. But like the configuration idea it is fundamentally useful. French national character is different from the British, and the British in turn from the German. Plains Indian personalities are typically strikingly unlike those of Pueblo Indians, and in

⁹ I. Schapera, *A Handbook of Tswana Law and Custom*, p. 106.

¹⁰ See C. W. M. Hart, "Contrasts Between Prepubertal and Postpubertal Education," in G. D. Spindler (ed.), *Education and Anthropology*, pp. 127-162.

¹¹ See M. Mead, *And Keep Your Powder Dry*, and G. Gorer, *The American People*, on American character; R. F. Benedict, *The Chrysanthemum and the Sword*, on Japanese character.

turn those of Central Australians. The Benedict-Mead approach has pointed up and driven home the theory that the personalities of the majority in any society are largely reflections of the ideal personality type presented by each society's culture.

The collective actions of a nation are to a certain degree the reactions of the ideal personality type to given stimulus situations. Accurate analyses of national character aid in understanding national conduct. The problem from the point of view of social science is to see that such characterizations are validated by adequate empirical data and critical checking.¹²

THE BASIC PERSONALITY STRUCTURE

Although the concept of basic personality structure developed by Kardiner originated in the concept of the ideal personality type, it is a development on the latter and is not identical with it.¹³

Whereas the use of the concept of ideal personality type demonstrates the close interrelation between culture and personality, it presents a characterization that is essentially descriptive and nongenetic. It describes what type personalities are without attempting to probe deeply into questions of how they got that way.

Kardiner, who is a psychoanalyst by training and in practice, has focused interest on the psychodynamics of personality and culture. The unique aspect of his approach is in the way he undertakes to determine the effect of social institutions upon personality and personality upon institutions.

Out of the interaction of this generalized psychoanalytic proposition and the anthropological materials on cultural determinism have emerged the following constructs: (1) Certain culturally established techniques of child treatment shape basic attitudes toward parents; these attitudes exist throughout the life of the individual. (2) The "group of nuclear constellations" of attitudes and behavior formed by the culturally standardized patterns of child treatment in any society, and persisting among the adults, is the *basic personality structure* characteristic of that society. (3) The complexes of child treatment are called *primary institutions*.

¹² Cf. O. H. Klineberg, "A Science of National Character" (*Journal of Social Psychology*, S.P.S.S.I. Bulletin 19, 1944), pp. 147-162; and E. Beaglehole, "Character Structure" (*Psychiatry*, Vol. 7, 1944), pp. 144-162. Also, M. Mead, "National Character," in A. L. Kroeber (ed.), *Anthropology Today*, pp. 642-667.

¹³ A. Kardiner, *The Individual and His Society; The Psychological Frontiers of Society*. A concise summary of the historical development of the concept may be found in Kardiner's article, "The Concept of Basic Personality Structure as an Operational Tool in the Social Sciences," in R. Linton (ed.), *The Science of Man in the World Crisis*, pp. 107-122.

(4) By means of the mechanisms of projection the nuclear constellations derived from primary institutions are subsequently reflected in the development of other institutions such as religion, government, mythology, etc. Institutions derived as a result of projective systems are called *secondary institutions*.

The Kardinerian system is a limited system that attempts two things: (1) the identification of the basic personality structure and the process of its formation as a reaction to child-care customs; and (2) the carry-over effect of the basic personality patterns into certain of the larger institutional structures of the society.¹⁴ In other words, he is striving to show how one phase of culture shapes personality and how the resultant personality in turn shapes other phases of the culture. He really is probing the interrelation between culture and personality, not just the influence of culture on personality.

The method in its present stage of development is avowedly self-limited. It does not attempt to discover how the primary institutions, the child-care complexes, came into being. "The primary institution is treated as the taking-off point for the individual, not for the culture."¹⁵ Furthermore, it assumes that various elemental aspects of culture, such as certain technologies (e.g., basket making), may have no direct bearing on the basic personality structure. And yet further, it acknowledges that in many cultures there are institutions that lie outside and independent of the projective system.

On the positive side, a precept of psychodynamics which is essential to the whole scheme, and which we have not yet mentioned, is that the individual is not wholly the passive receptor of his cultural system. Culture is transmitted through learning, but the individual works emotionally upon what he experiences.

The point is that learning processes do not account for the integrative character of the human mind in so far as the emotional relationships of the individual to his environment are concerned. . . . In addition to direct learning processes, the individual builds up a highly complicated series of integrative systems which are not a result of direct learning.¹⁶

The integration of the personality, like the integration of a culture, is more than the sum of its parts.

¹⁴ Note that Kardiner's secondary institutions are institutions in the ordinary sociological sense (see p. 283). However, his primary institutions are what anthropologists usually call *trait complexes*. In a strict sense they are not institutions at all. This leads Kardiner in his later work to amend the concept of primary institution to read: "primary institution or related practices, whether institutionalized or not." (*The Psychological Frontiers of Society*, p. 25.)

¹⁵ *Ibid.*, p. 25.

¹⁶ A. Kardiner, "The Concept of Basic Personality Structure as an Operational Tool in the Social Sciences," in R. Linton (ed.), *The Science of Man in the World Crisis*, pp. 109-110.

It is quite impossible to convey the meaning of the operational application of the basic personality structure with anything like reasonable adequacy here. Yet a skeletal sketch will portray the idea better than none at all. We select Alor for the purpose, since it is the only one of the primitive cultures on which Kardiner has published results of psychodynamic analysis that is really based upon adequate data. All his other analyses of primitive cultures (Marquesan, Tanala, Comanche) must be recognized as experimental probing; the conclusions drawn from such probing must be treated as wholly provisional and indicative of potential results rather than final fact.

The Alorese Basic Personality Structure. In discussing the family (Chap. 18) the Alorese family was cited as one type that failed to meet the basic security needs of its offspring. This point now needs more detailing. The

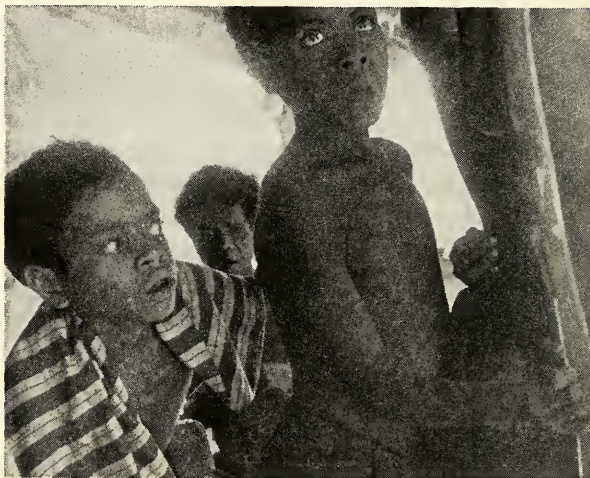


Fig. 33-2. Alorese children in the presence of adults. (*Cora DuBois.*)

Alorese child is neglected. It is wanted, not rejected, but neglected. The mother works, and works hard, in her scattered fields. After the fourteenth day she has little time for her child. The father is away from home much of the time. The hunger pangs of the infant are irregularly and inconsistently met. The mother does not take the child to the fields with her. Someone else around the house must tend it—grandma, an older child, the father, if he is home. Several women may nurse it now and then; it is given gruel and premasticated bananas almost from the outset. Its hunger cravings are physiologically met, but no consistent image of any person upon whom it can depend for relief of hunger tensions is developed. Premasticated food may be given by anyone who wants to stop the

infant's incessant bawling. But rejection and spitting out of such food indicate that it does not relieve the emotional tensions of the child. Hunger is more than an empty stomach.

Although the child is not left alone and is usually lugged around half-sitting in a shawl, it is not fondled or caressed by its parents to relieve its tensions. But the mother or elder brother or sister, or whoever else is paying any attention to the infant, masturbates it to calm it down. This is merely a distraction and does not help to build the child's ego, for it is no more than an absent-minded gesture.

In the primary institutions of Alor child feeding, there is no possibility of production of a parental image as a reliever of tensions. The intermittent appearance of the mother makes of her a tantalizing object who gives but inadequately the satisfactions so desperately needed.

Early childhood illnesses are indifferently treated and irritated by rough handling and irritating medication.

Learning to walk is accomplished in spite of lack of assistance and encouragement. Again there is no one to enter into a relationship eliciting trust and dependence in response for giving security and abetment.

Defecation and urination are not brought under any particular coercive control. At this point Alorese child neglect is a slight psychological benefit to the growing child. No anal eroticism is produced.

Comes weaning, and the rejection of the child by its mother and mother substitutes, while not abrupt, is damaging. The breast-seeking child is pushed away or slapped. Then jealousy and rage are deliberately evoked



Fig. 33-3a, b. The Alorese child receives no help from adults when learning to walk (Cora DuBois.)

by taking another child to the breast. Food is promised but not given. The adults think this is very funny.

These are the main lines of the primary institutions.

What is the basic personality structure? Some of its features emerged in the last chapter.

As children the Alorese are shy and reserved—they do not expect favorable response—but they fly readily into tantrums and become vituperative. Because they cannot obtain their desires or rewards in a direct way they steal and forage as a regular thing. Aggression becomes canalized and predatory. The child, in turn, may reject his family by running away from home to live with some remoter relative.

This is the most extreme gesture of defiance and independence that the child is permitted and offers both a safety valve for pent-up aggressions and an opportunity to sustain the hope that the child may find in one of its other relatives the long-sought-for kind parent.¹⁷

None of the childhood patterns build toward emotional solidarity within the family.

The essentials of the adult male roles and character have already been sketched in our discussions of puberty (page 378) and in our outline of the configuration of Alor culture (pages 163–164).

The ego development and social conscience (superego in Freudian terminology) are very weak. There is little self-confidence or sense of responsibility to others or to society. Relations to women are a projection of the almost complete defeat of the child in its relations to its mother. Husband to wife relations are bitter and nonintimate. Woman is the economic provider and the male is dependent upon her. Yet he cannot really dominate her. Compensation is found in the elaborate tomfoolery of loans and exchanges, the functions of which are essentially to gratify psychological rather than the production-consumption needs of the economy.

Warfare and religious institutions in Alor bear quite clearly the impress of the projective system. War, we saw, was disorganized, fitful, and vengeful. Religion falls within the category of ancestor worship as is characteristic of the cultures of this part of the world. But the ancestors are neither exalted nor revered. Their powers for good are not exaggerated and there is no desire to assuage them by suffering or renunciation in their names. Because there is no interest in, possibility of, or benefit to be derived from getting back in their good graces, there is no restitution by penance. One expects no more from the ancestral gods than one expects from parents.

Ancestors, however, want to be fed. Failure to feed the gods makes them angry (failure to feed the child was the supreme frustration). Angry

¹⁷ A. Kardiner, *The Psychological Frontiers of Society*, p. 156.

gods punish their descendants. With great reluctance and only under the duress of misfortune the Alorese make sacrificial food offerings to the ancestral spirits.

Religious art is careless and slipshod. Gods are projected "fathers" and "mothers." With no idealization of parents in the culture there is no idealization of the gods. Representative carvings of ancestral deities are carelessly made, perfunctorily used, and quickly discarded. The dead are projections of the powerful and insistent creditors who bedevil adult life. In short:

The basic personality in Alor is anxious, suspicious, mistrustful, lacking in confidence, with no interest in the outer world. There is no capacity to idealize the parental image or deity. The personality is devoid of enterprise, is filled with repressed hatred and free floating aggression over which constant vigilance must be exercised. The personality is devoid of high aspirations and has no basis for the internalization of discipline. Individuals so constituted must spend most of their energy protecting themselves against each other's hostility. Cooperation must be at a low level and a tenuous social cohesion can be achieved only by dominance-submission attitudes, not by affection and mutual trust.¹⁸

Alor is a society with an old culture. It has survived for quite some time. This means that it has made the necessary minimal adjustments to the physical and biological imperatives. Yet that it is a precarious adjustment there can be no doubt; "the continuance of the society must hang on a very thin thread." It has had the protection of island isolation sealed off from too much external competition.

As an object lesson in the interaction of culture upon personality and personality upon culture it is superb.

NORMALITY AND ABNORMALITY: PERSONALITY CONFLICT

From the discussion of Alorese culture and its effects it may be seen that what is normal behavior in that society would be looked upon by most Americans as unusual. In 1954 a healthy Ojibwa Indian boy was sent down to the psychiatric ward of the University of Minnesota Hospital because he believed in spirits and thought people could be killed by shooting them with magic mollusk shells. He had been instructed in the mysteries of the Ojibwa Grand Medicine Lodge or Midewiwin by his grandfather. In Ojibwa terms his beliefs are true and wholly normal. It is only when measured against our assumptions that he is "off the beam" and a subject for psychiatric treatment. To share the delusional beliefs traditional in one's own society is a normal phenomenon, notes

¹⁸ *Ibid.*, p. 170.

Hallowell. To develop a private delusional system on one's own is what is abnormal. In its mild form this is neurosis. When it becomes so extreme that the individual loses contact with the reality order of his own society, it becomes a psychosis.

A number of Navaho incest cases, or what the Navaho believe are incest cases, collected by Prof. Walter Dyk focus a sharp light on the cultural determination of psychoses.¹⁹ In each case the incester went psychotic and became the victim of a self-destruction-by-fire obsession. At night when others in the hogan relaxed their watchfulness in sleep these poor psychotics burned off their hands or feet or lay on their bellies in the quiet embers of the hearth. In each case the psychotic claimed to have committed incest. Navahos believe that incest is punished by the fire madness. Psychiatrists are thoroughly familiar with the fact, however, that neurotics and psychotics may be convinced of their guilt in acts they have never committed. It is clear that the Navaho psychosis with the fire-self-destruction symptom is a culturally determined abnormality; it is also quite possible that the incest guilt follows the mental aberration rather than causes it.

To a greater and greater extent psychiatry is coming to look for the social roots of psychoses. Even medical practitioners are expanding their awareness of the etiology of seemingly organic diseases in sociopsychological maladjustment. "From concern with the individual as a biological unit psychiatry has progressed to a consideration of him as a social unit. . . . Psychiatry has become a social science as well as a medical science."²⁰

Anthropology has proved that within limits "abnormals are those who are not supported by the institutions of their civilization."²¹ This means that he who is abnormal in one society may be the approved ideal in another. Crashing Thunder, the Winnebago realist (see page 186), was a misfit in his tribal society, whose culture required visionary experience for success, but he had the personality equipment to make him a successful, hardheaded, two-fisted, go-getting businessman. Siberian shamans definitely have unstable neurotic personalities. In their society they are leaders and men of influence. In our society they would be crackpot members of the lunatic fringe, whom many judges would consider fit candidates for a mental hospital.

In our society the habitually homosexual male is looked upon with emotionally intense hostility. His rejection by the normal elements of our

¹⁹ W. Dyk, *Navajo Field Notes* (unpublished).

²⁰ W. C. Menninger, "Psychiatry Today" (*The Atlantic Monthly*, Vol. 181, 1948), p. 65. An excellent book with this orientation is N. Cameron, *The Psychology of Behavior Disorders*.

²¹ R. F. Benedict, *Patterns of Culture*, p. 258.

world is often complete and devastating. His conflicts of guilt, remorse, and frustration may be enough to turn him into a psychopath no matter how healthy his early personality may have been. Homosexuality usually accompanies a rejection of the normal social roles fixed for the two sexes.

In Plains Indian culture the way out of the dilemma for the boy who found himself unable to meet the demands of the aggressive warrior role was that of the institutionalized *berdache*, or transvestite. At the time of the vision quest he would be ordered by some tutelary spirit to take up a woman's role, to wear women's clothes, and to perform women's tasks. Because the order was a supernatural one, there was no blame affixed to the transvestite. Indeed, although the half-men-half-women were looked upon with awe by children, they were respected and sought out by young men who hoped to procure love medicine from them with which to lure the affection of a desired girl. Thus, Plains Indian berdaches, while relatively rare, were not abnormal personalities, because they were supported by their culture.²²

Still another lead to the understanding of mental disorganization that derives from the cultural approach is an awareness of personal conflict resulting from the varying demands of the society's culture.

Mead has phrased this very nicely in terms addressed to the problem of adolescent conflict but pertinent to the whole distressing miasma of uncertainty and the continuing demands for decision that our culture imposes upon all but the most circumscribed persons.

Our young people are faced by a series of different groups which believe different things and advocate different practices, and to each of which some trusted friend or relative may belong. So a girl's father may be a Presbyterian, an imperialist, a vegetarian, a teetotaler, with a strong literary preference for Edmund Burke, a believer in the open shop and a high tariff, who believes that woman's place is in the home, that young girls should wear corsets, not roll their stockings, not smoke, nor go riding with young men in the evening. But her mother's father may be a Low Episcopalian, a believer in high living, a strong advocate of States' Rights and the Monroe Doctrine, who reads Rabelais, likes to go to musical shows and horse races. Her aunt is an agnostic, an ardent advocate of woman's rights, an internationalist who rests all her hopes on Esperanto, is devoted to Bernard Shaw, and spends her spare time in campaigns of anti-vivisection. Her elder brother, whom she admires exceedingly, has just spent two years at Oxford. He is an Anglo-Catholic, an enthusiast concerning all things mediaeval, writes mystical poetry, reads Chesterton, and means to devote his life to seeking for the lost secret of mediaeval stained glass. Her mother's younger brother is an engineer, a strict materialist, who never recovered from reading Haeckel in his youth; he scorns art, believes

²² Cheyenne informants estimated that there were usually about five among the 3,000 members of the tribe.

that science will save the world, scoffs at everything that was said and thought before the nineteenth century, and ruins his health by experiments in the scientific elimination of sleep. Her mother is of a quietistic frame of mind, very much interested in Indian philosophy, a pacifist, a strict non-participator in life, who in spite of her daughter's devotion to her will not make any move to enlist her enthusiasms. And this may be within the girl's own household. Add to it the groups represented, defended, advocated by her friends, her teachers, and the books which she reads by accident, and the list of possible enthusiasms, of suggested allegiances, incompatible with one another, becomes appalling.²³

Fanatics are people who acquire fixations on one scheme of life, religion, or politics because they cannot thread their way through the maze of conflicting alternative demands that modern life imposes. They escape a breakdown by settling into a less complete form of insanity.

If the multiplicity of conflicting cultural demands drives to near madness people who are trained wholly within a single cultural tradition, how much more disrupting of the personality is the situation when people are subject to the demands of two or more unlike cultures. This is the case with immigrants to this country.

Thus we see that not only do culturally induced conflicts produce psychoses but the configurations of the cultures influence the kind of insanity that results.

ACCULTURATION AND PERSONALITY

This, then, is the sort of thing that occurs on the level of civilized people caught between two cultures. Generically similar but not necessarily identical phenomena often occur when a primitive culture is in the process of being destroyed by a civilized one. Aside from the ravages of disease on the biological level, the too rapid destruction of a people's culture means disruption of individual personality for most of the members of the primitive group. A small minority manage quickly to simulate the conquering culture. These persons are usually those who were (1) misfits in their own society, on the biological or social level unable to adjust to their cultural standards; or (2) assigned by ascribed status to roles of limited prestige and power, who therefore hope to better their position under the new dispensation; and (3) well-integrated leaders who see the inevitable end of their culture and are able consciously and intelligently to make the shift without crack-up, although with heavy hearts. The annals of American history are studded with the moving declarations of great Indian chieftains announcing their determination to follow the white man's road.

²³ M. Mead, *Coming of Age in Samoa*, pp. 202-203.

Again and again in the history of recent culture contact the majority of the overwhelmed tribes have lapsed into alcoholism tempered with lassitude. "Lazy, drunken, good-for-nothing Indian" became a tragic by-word in America. But not because Indians are inherently such. Rather it was because when the Indian way of life was gone there was nothing for most Indians to live for. Interest and motivation were dead. The spice of life lost its savor. Dull drifting on government dole or escape in chronic drunkenness was the result.

Personality conflict of a different order is generated by cultural disparities when a primitive culture engulfed by a civilized culture still remains strong. Consider the possibilities in the situation that must have confronted some of the young Pueblo Indian men in the last war. A common Southwest Indian notion is pollution through killing an enemy. In most of the pueblos those who have killed and taken a scalp must join the Warriors' or Scalp Society. Initiation is a form of absolution.

In 1941 membership in the Warriors' Society of one of the Keresan pueblos was reduced to one surviving old man who did not know the details or have the power to initiate new members. The society was functionally defunct but the power of its beliefs was not. Thus the rejoinder of a member of the pueblo to the author's speculation that some of the boys who had been drafted would bring back German and Japanese scalps and revitalize the Warriors' Society was

No. When our boys go off to the army we give them very strong instructions. They must not pick up any souvenirs on the battlefield or touch anything that belonged to the enemy. They must not touch any dead enemy bodies. If they do they are contaminated and there will be no way to clear them of it. They will stay that way for life.

Consider the mental anguish of the Pueblo G.I. who might be ordered to do burial-squad duty or battlefield salvage work. The possibilities for psychoneurosis due to no deficiency of the individual are much heightened in such a situation.

SUMMARY

The personality of the individual is analogous to the culture of a society: it is a sum of integrated behavior traits. The bodily constitution, physical environment, and culture as reacted to by the individual combine to produce the total personality.

Enculturation encompasses all the processes by means of which the individual learns to internalize the norms of his culture. It requires selection and elimination of a multitude of kinds of behavior that the individual has the urge to indulge in.

592 The Dynamics of Culture

Basic drives result from biological needs that have to be met. All cultures provide ways for satisfactory drive reduction by presenting effective patterns for goal achievement. At the same time each culture is the product of limited selection from the vast variety of potential human behaviors. The growing individual must learn to adapt his behavior to the expectancies of his society and to its peculiarities. The person who fails in this is a deviant, and, under mental stress, may become neurotic or psychopathic. Mental abnormality, however, is a relative thing.

Modal personality types reflect differing configurations of culture. Each culture puts its stamp upon the individual who develops under its influence. Most men reflect a common tribal or national type, mirroring their culture and society. Yet each is possessed of his own uniqueness that no culture can submerge.

SELECTED READINGS

- Benedict, R.: *Patterns of Culture*. The classic formulation of the idea of cultural configuration in relation to ideal personality types. Persuasively written in fine literary style, it should not be taken as a reliable ethnography of the cultures discussed, although its major theme is acceptable.
- Gladwin, T.: *Truk: Man in Paradise*. A detailed field study of personality in relation to culture in Micronesia, Southwest Pacific.
- Haring, D. (ed.): *Personal Character and Cultural Milieu*. A well-balanced anthology of technical papers written by professionals for professional reading. It will be hard going for the beginning student, but is rewarding for those who want to get their teeth further into the subject.
- Honigman, J. J.: *Culture and Personality*. The one general textbook on this subject.
- Kardiner, A., and others: *The Psychological Frontiers of Society*. Contains a general statement of the Kardinerian theory, with description and analysis of Comanche, Alorese, and a midwestern United States community.
- Mead, M.: *Male and Female*. Dr. Mead's most recent and provocative summing up of the interplay of culture and individual psychology in the shaping of men and women in seven primitive societies and the United States.
- Opler, M. K.: *Culture, Psychiatry and Human Values*. Mental illness and culture expertly interrelated.

CHAPTER 34. The Growth of Culture: Invention and Diffusion

CULTURE grows by accretion of inventions. But what is an invention? Does it differ in any way from discovery? These questions are not merely queries of theoretical importance for analytical purposes. They are of tremendous practical significance in the operation of modern patent law where an invention is patentable, while a discovery is not.

In the view of a United States District Court of Appeals, a valuable patent on the process of irradiation of foodstuffs by exposure to ultraviolet light was invalid because it merely utilized a physical-chemical process that has existed since life began. A distinction is drawn between the invention of a lamp for producing ultraviolet light and the discovery of the fact that exposure to ultraviolet rays increases the vitamin content of the exposed organic materials. The one is patentable (subject to certain legal limitations); the other is not.¹

INVENTION

A discovery is the process of becoming aware of something which has been existing but which has not been previously perceived. Vitamins and sunspots were discovered, not invented.

An invention is an alteration in or a synthesis of preexistent materials, conditions, or practices so as to produce a new form of material or action. We have to deal with new patterns of action that are translated into concrete form (material inventions), and we have to deal with inventions that remain in the realm of action patterns solely. These latter are sometimes called *social inventions*, or by philosophers, *moral inventions*.

¹ *Vitamin Technologists v. Wisconsin Alumni Research Foundation* (Federal Reports, 2d series, Vol. 146, 1945), pp. 941ff.

To illustrate the distinction between discovery and invention more fully, let it be noted that the first ninety-two elements, from hydrogen to uranium, were discovered by means of scientific perception. But the new transuranium elements (such as neptunium and plutonium), which have come into being since 1940, are truly invented elements. They were not known to exist in nature; they were produced as a result of human ingenuity in the development of techniques for separating neutrons from their elemental nucleus and causing them to enter another elemental nucleus without producing fission. New combinations of protons, neutrons, and electrons were produced; hence, the new elements.

Contrary to casual belief, invention does not have to be intentional or sought after. Because in our culture invention is highly valued and richly rewarded, we have hordes of aspiring minds struggling to find new relations as solutions to set problems. In the process of volitional invention the inventor recognizes a need or thinks he sees an insufficiency in some form or function. He sets a problem for solution on the basis of this recognized need and proceeds from this point to attempt a rational solution in the form of a practicable invention. *Popular Science Monthly*, for example, capitalizes upon and stimulates this process by running a monthly column of suggested needs for inventions submitted by its readers. Volitional invention, however, is characteristic only of highly sophisticated societies with a cultural bent toward dynamic change. Even among advanced civilized nations relatively few include within their populations many active willful inventors.

In the primitive world volitional inventiveness is truly a rare occurrence. Conscious tinkering with the social structure or with gadgetary improvement is not the order of the day. Most primitive inventions are nonvolitional. They result from what Greenman has called *accidental juxtaposition*.²

The operation of the principle of juxtaposition on the crudest level may be illustrated by taking recourse once again to the activities of Köhler's famous apes. The fact that Sultan was able to join two sticks together and so obtain the banana outside his reach was mentioned in Chapter 10. The fact that other apes were able to imitate his invention was cited as evidence of incipient cultural capacity among chimpanzees. The details of the inventive process were not mentioned, but it shall be done now, for it is important to the point under discussion.

Sultan was presented with a problem: how to get that banana. He was also presented with two hollow bamboo sticks, neither long enough in itself to reach the banana. Both, however, were so fashioned that one

² E. F. Greenman, "Material Culture and the Organism" (*American Anthropologist*, Vol. 47, 1945), pp. 212ff.

could be snugly fitted within the other to make a stick long enough to meet the need. An invention was called for, and the means were at hand. Sultan strained his simian brain for a solution, but the best he could work out was to push one stick toward the banana with the other. This failed to capture the banana. At length, like many another disgusted inventor, he gave up. His efforts at volitional invention were a flat failure. He dropped the sticks and turned his attention to less frustrating activities.

As he roamed around his cage looking for amusement, his attention was once more directed to the sticks. He picked them up and began to play with them in a casual manner and entirely without interest in the elusive banana. Suddenly he found himself holding the two sticks end to end. He pushed the one into the other. Lo, he had it! At this critical point his intelligence was equal to the occasion. He could recognize a useful relationship when he saw it. Immediately he went to the bars, used his tool, and swallowed the banana.³

We actually know very little of the precise steps by which most primitive inventions came into being. Long archaeological sequences such as have been established for European prehistory and in the Southwest reveal the external form of the gradual steps by which many artifacts have been developed over generations of time. A less empirical method, of which earlier anthropologists were quite fond, was to reconstruct the inventive steps by mesological inference. This is a most intriguing pastime, but too often the result is more of a "Just so" story than an objectively substantiated analysis worthy of scientific attention.

The Cheyenne Indian account of the invention of the tipi is of this order. Grinnell recorded that,

The first lodge of modern shape is said to have been suggested by a man who was handling a large poplar leaf, and quite by accident bent it into the shape of a cone—that is to say, of a lodge, such as are used today. As he looked at the leaf it flashed into his mind that a shelter like it would be better than those they then had. He showed it to the people and they made lodges in the shape of this leaf, and have used them ever since.⁴

Although it is extremely unlikely that any Cheyenne Indian invented the conical lodge in this manner,⁵ the story illustrates quite perfectly the operation of the principle of juxtaposition. Sultan's invention was the result of the close juxtaposition of two objects (the sticks); the supposed

³ W. Köhler, *The Mentality of Apes*, pp. 130–133.

⁴ G. B. Grinnell, *The Cheyenne Indians*, Vol. 1, p. 50.

⁵ The Cheyennes did not acquire the conical skin tipi until well into the nineteenth century. Other Plains and Woodlands tribes had it before them, so it is quite certain that the Cheyennes borrowed the idea.

invention of the Cheyenne tipi was the result of the juxtaposition of two mental images: the cone formed by the leaf and the potential house.

The two accomplishments together exemplify Greenman's final definition of juxtaposition:

The creation of a new implement as the sequel to the establishment of a close spatial relationship between two or more objects, or of a close temporal relationship between the mental images of two or more objects, by natural or artificial means without foreknowledge of the result.⁶

In the technical field, therefore, the creation of a new type of artifact as a result of juxtaposition is a mental reaction to a stimulus in the environment. For the most part, "the progressive evolution of technical forms had to wait upon such accidental juxtapositions."⁷

Of course, accidental juxtaposition can lead to inventive errors as well as to beneficial creativeness. The heavy freight of shibboleths, nonsense tabus, and false dogma carried through the ages by mankind results from erroneous association of images in juxtaposition.

Furthermore, mere juxtaposition does not in itself automatically generate an invention. The use, meaning, and function⁸ of particular artifacts or social forms may be such as to block acceptance of new forms, uses, meanings, and functions that are proposed in conjunction with new inventive ideas. Resistance to new inventions is proverbial, and inventors are by no means always heroes.

Anthropological data and historical fact combine to establish that invention is rarely mutational. Complex tools and institutions develop gradually as the result of contributions by many men over a considerable period of time. Our discussion of the development of domesticated plants in the New World (see pages 191-194) constituted a brief summary of the multifarious sources of this complex social invention. The gradual nature of the developmental process was implicitly indicated in that discussion. As a contrasting example of what primitive invention is not, the following flight of uninhibited imagination is noteworthy:

What vision some ancient fellow must have had to start this process [the domestication of corn]! Can you imagine some primitive hunter of long ago as he sat in the mouth of his cave after an unsuccessful hunt? This man's

⁶ Greenman, *op. cit.*, p. 215.

⁷ *Ibid.*, p. 218.

⁸ Cf. H. G. Barnett, "Culture Processes" (*American Anthropologist*, Vol. 42, 1940), pp. 21-48. *Form*: how it looks to an objective observer; *meaning*: what a people think and feel about it; *function*: what it really does for them. See also R. Linton, *The Study of Man*, pp. 402-404, for a detailed discussion of these analytical concepts. Linton also distinguishes *use*: an ax is used to chop wood; it functions to satisfy the need for wood.

empty stomach had stimulated his mind and he began to reason, which is the process that distinguished this man from the animal he hunted. A bird was eating grass seeds before him. If only those seeds were as large in relation to the man as they were to the bird! Could they be made larger? Possibly by picking out the very largest seeds and those which tasted best, and planting them next year, he might have a larger plant with larger seeds. The process was started.⁹

Invention proceeds not only by small steps, but until very recent times it was also quite rare. Remember, it took a good 900,000 years and more for our European antecedents to pass through the inventive sequence of the Old Stone Age.

The vast majority of human societies can claim relatively few inventions to their credit. There is abundant evidence to prove that most trait accretions are through borrowing. This leads to a consideration of diffusion.

DIFFUSION OF CULTURE TRAITS

When we find a particular trait or trait complex spread over a wide area and practiced by a number of different tribes we are confronted with several theoretical possibilities. Either each tribe invented the same trait independently, or one tribe invented it, after which it spread to the others through borrowing, or several tribes separately invented it, after which it subsequently spread over the area.

We can safely say that the first possibility never occurs. Historical observation establishes that all peoples are always borrowing from others. We know, for instance, that Indians did not invent domestication of the horse, nor the art of riding, nor halters, bits, reins, saddles, or any of the other accouterments of riding. They were all adopted from the Spaniards, first by the tribes of the Southwest frontier, who passed them on to the north and east.¹⁰ An interesting fact to note is that the Western saddle, horn-pommeled and deep-backed, was copied from the Spanish saddle, as was also the Indian's. But the Eastern riding saddle is copied from the English type that made its appearance first on the Atlantic Coast. The McClelland army saddle is a fusion of the two types.

Even such simple matters as hide dressing are acquired by borrowing. According to Grinnell,

⁹ F. C. Hibben, "Corn" (*The Atlantic Monthly*, Vol. 175, 1945), p. 121.

¹⁰ C. Wissler, "The Influence of the Horse in the Development of Plains Culture" (*American Anthropologist*, Vol. 16, 1914), pp. 1-25; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 155-173. F. Haines, "Where Did the Plains Indians Get Their Horses?" (*American Anthropologist*, Vol. 40, 1938), pp. 112-117; also, "The Northward Spread of Horses among the Plains Indians" (*American Anthropologist*, Vol. 40, 1938), pp. 429-437.

When the Cheyennes first found the buffalo, they had no knowledge as to how to dress hides. Later, the Sioux on the east side of the Missouri showed them how to cut hides in two, dress them, and sew them together again. These they used as robes. After they reached the Black Hills the Kiowas and Comanches taught the Cheyennes how to dress buffalo-hides in one piece and also showed them the use of a mixture for softening the hide.¹¹

Much more complex cultural structures also spread through borrowing. It is a canon of anthropological analysis that when a complex consisting of a number of internal traits appears in two or more contiguous cultures the probability of diffusion is high, especially if the nature of the traits is such that nothing in their component characteristics forces the formation of the particular complex in question.

Tylor was the first to formulate and apply this principle in a study of the diffusion of the ancient East Indian game of pachisi into prehistoric America where it appeared among the Aztecs as *patolli* and in various other forms among other Indians.¹² Tylor undertook to prove historical connection between the Asiatic and American forms of these games by "analysing such phenomena into constituent elements showing so little connection with one another that they may reasonably be treated as independent. The more numerous such elements, the more improbable the recurrence of the combination."¹³

The technique may be applied to any aspect of culture, but it is particularly apt in the case of folklore. The ideas and objects treated in a folk myth are adjusted to the framework of each people's culture, but the distorting pressures are not as great as are commonly exerted in the field of material culture. Ideas range freer of the material environment than do artifacts.¹⁴ Hence, there is a greater stability the world over in myth complexes than there is in tool or house complexes.

For a fascinating study of comparative distributions of Old World myth complexes, Frazer's *Folklore in the Old Testament* is challenging reading. For our demonstration of the application of the principle of diffusion analysis by means of internal congruity of traits, the "Tale of the Wandering Animals" will be used.

¹¹ Grinnell, *op. cit.*, Vol. 1, p. 51.

¹² E. B. Tylor, "On the Game of Patolli in Ancient Mexico, and Its Probable Asiatic Origin" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 8, 1879), pp. 116-129.

¹³ E. B. Tylor, "American Lot Games as Evidence of Asiatic Intercourse before the Time of Columbus" (*Internationales Archiv für Ethnographie*, Vol. 9, supplement, 1896), pp. 66. For a critical evaluation of Tylor's method, see C. J. Erasmus, "Patolli, Pachisi, and the Limitation of Possibilities," (*Southwestern Journal of Anthropology*, Vol. 6, 1950), pp. 369-387.

¹⁴ F. Boas, *Tsimshian Mythology* (Bureau of American Ethnology, Annual Report 31, 1916), pp. 393-558. This is the classic study of the reflection of a people's material culture and social organization in their mythology.

This story is familiar to all readers of Grimm's *Fairy Tales* as the "Musicians of Bremen." The old donkey, the worn-out hound, the abused cat, the rooster destined for the pot, and other rejected decrepit animals all joined forces to go to the fair port of Bremen to become *Stadtmusikanten*. Night closed in on them as they found themselves deep in the woods. They frightened the robbers out of their hut and made themselves at home, each in his favorite spot—the cat on the hearth, the rooster in the rafters, the dog on the doorstep, the donkey on the dungheap. The robbers sent back a spy in the darkness. But when he lighted the fire, the cat flew in his face; the dog chewed his leg as he fled through the door; the donkey planted a kick; and the rooster crowed his doom. The weak and despised animals frightened away the robbers (symbolic of mankind) and lived prosperously ever after in their nice snug little hut in the woods.

In Southeast Asia and Japan an ancient story is told, which in its simplest outline runs as follows:

An egg, a scorpion, a needle, a piece of feces, and a rice mortar (or any hard, heavy object) come together upon a journey. They enter the house of an old woman during her absence, and in order to do her harm, they dispose themselves in different places. The egg lies on the hearth, the scorpion in the water basin, the needle on the floor, the feces in the doorway, and the mortar over the door. When the old woman comes home in the evening, she goes to the hearth to light the fire, but the egg springs up and smears her face. When she goes to the basin to wash, she is stung by the scorpion. Seized by terror, she rushes from the house, but the needle sticks her in her foot, she slips on the feces and is upset, and the mortar falls on her head, killing her.¹⁵

Here are the Musicians of Bremen all over again. Aarne justifiably concluded, "The concurrences between the tales are so significant that in my opinion we must conclude that the stories stand in an interdependent relationship in their origin."¹⁶ The story is traced through India by this scholar, into south Russia, up through Central Europe and into Germany, where it arrived in the late Middle Ages.

Now let us shift our attention to the Northwest Coast of North America. A favored story of the Northwest Coast Indians has now a familiar ring. It is "Raven's War on the South Wind."¹⁷ Raven is the mythological culture hero of this area and the south wind often brings too much rain from the ocean.

The South Wind, so the story runs, was blowing so incessantly that

¹⁵ A. Aarne, *Die Tiere auf der Wanderschaft* (Folklore Fellows Communications, No. 11, 1913), p. 100.

¹⁶ *Ibid.*, p. 162.

¹⁷ Eleven versions are recorded by Boas in his *Tsimshian Mythology*, pp. 79–81, 658–660.

all the creatures had to stay in their huts. They could not hunt, and they were hungry. The smoke blew back down their smoke vents and made their eyes sore. At last Raven called a council of war to propose an attack on the Master of the South Wind. A special canoe was procured, and the war party made the journey to the home of the South Wind. They had trouble landing, because the gale caused by the flatulence of the Master of the South Wind was so strong that they were nearly overcome.

But once ashore, Halibut and Flounder or Skate (all flat, slippery fish) arranged themselves according to Raven's orders just outside the South Wind's doorstep. Red Cod or the Wren went in and started a smudge (in another version, Mouse went in and bit the South Wind's nose). As the Master of the South Wind staggered from the house, he slipped on the fish, slithered down the beach where the waiting animals tried to beat his brains out with clubs—which are as hard as a rice mortar or a donkey's hoof. The South Wind made a successful deal for his life—four days of good weather to alternate with four days of bad.¹⁸

Here, then, is a basic plot in which pusillanimous animals overcome masterful human beings in their very houses by combining their own little natural aptitudes to undo mankind. No matter that men were the authors of the tale. It is the story of the little men triumphing over the big men who order their lives. Its appeal as a vicarious release of suppressed resentments is clear. The ludicrousness of the event provides an elemental sort of gusty humor. The story is too good to keep. It has a broad appeal because it meets a common need. From Asia it spreads westward into Europe, northeastward into the northwest corner of North America. This, however, is not the end of its history. In post-Columbian times variants of the Musicians of Bremen form of the tale were brought to the eastern Indians by early trappers, and in the Plains and Woodlands they were adapted into a charming story known as "Big Turtle's War Party."

Thus, by word of mouth, crossing language barrier after language barrier, the "Tale of the Wandering Animals" has girdled the globe; penetrating North America from the west and from the east, it met itself along the rocky spine of the western mountain area (Fig. 34-1).

The spread of tobacco may be followed from the New World to Europe and Africa, from Europe to the South Seas and Asia, and to Siberia whence it went into Alaska even before it reached the Eskimos from the south. Although Indians 1,000 miles away had native tobacco, it had to travel some 15,000 miles around the world before the Eskimos

¹⁸ An analysis in full detail is given in E. A. Hoebel, "The Asiatic Origin of a Myth of the Northwest Coast" (*Journal of American Folklore*, Vol. 54, 1941), pp. 1-12.

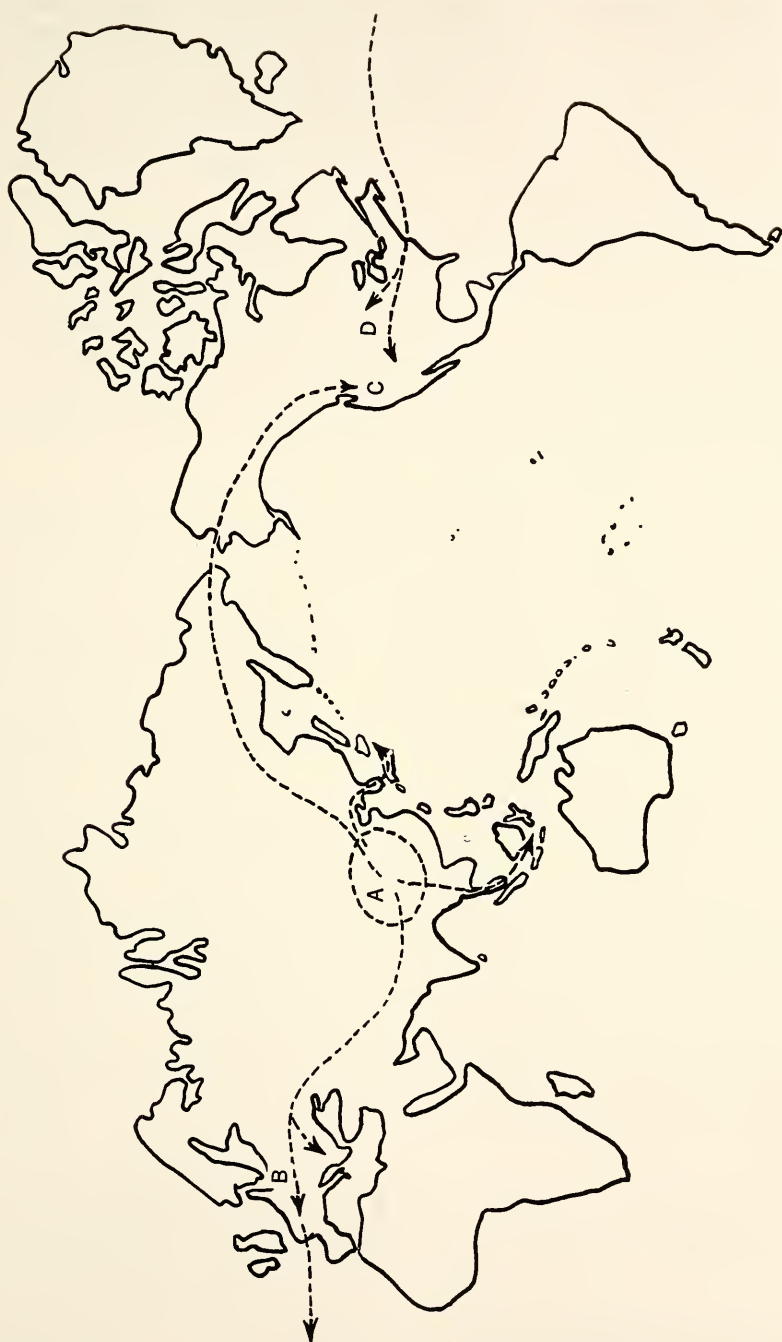


Fig. 34-1. Diffusion of the Asiatic Wandering Animals Tale: A, original Asiatic center of origin; B, the Musicians of Bremen version; C, Raven's War on the South Wind; D, Big Turtle's War Party.

could enjoy a smoke. In this case, the essential factor was the difference between limited primitive transportation of an item that can be grown only in favored locales and the extensive communication established by European civilization with the Commercial Revolution.

Trait after trait may be followed through the course of its diffusion either by reliance upon historical data or by inferential reconstruction through distributional analysis.

Dynamics of Diffusion. Diffusion is no simple straight-line process in which some originating people put an idea on wheels, figuratively speaking, and give it a shove to send it on its way around the world.

Every spreading trait or complex as it moves from one society to another must face the test of its acceptability in the culture of the receiving people; and if it is accepted, it invariably is reworked either in form, use, meaning, or function. No people take an alien trait without altering it to some degree.

The fate of the Plains Indian sun dance may be used to illustrate this. The sun dance is a fairly complex ritual shared by a score of tribes in the western part of the Plains area. The ceremony is most elaborated and developed among the Arapaho and Cheyenne. From these tribes, according to Spier's classic analysis, the complex spread out among the other nomadic tribes.¹⁹ In its core the sun dance shows remarkable stability wherever it occurs. The fundamental form of the dance is universalistic within the area of its distribution. Nevertheless, considerable variation in content occurs from tribe to tribe. As Spier observed, strong systematic selection was exercised.

Selection often works in subtle ways that we cannot determine *ex post facto*. In more obvious points, however, the determinants may be quite clear. Thus, a feature of the Arapaho sun dance is the use of medicine bundles and special roles played by the military fraternity of the man who sponsors the dance. Among the Wind River and Idaho Shoshones neither of these occur in connection with the dance. The reason is simply that in the crude Basin culture of the Shoshones there is no social structure of military societies and no priesthood of bundle owners. The Shoshones stripped the complex ritual down to the structure of their meager social framework. It is quite reasonable that in the eyes of an Assiniboin Indian the Shoshone version should be "a travesty, nothing more."

Not only is form modified in diffusion, but also meaning. To the Cheyennes the sun dance has been the fulfillment of a conditional contract with the sun. A man in dire straits in battle or a desperately ill

¹⁹ L. Spier, "The Sun Dance of the Plains Indians" (*American Museum of Natural History, Anthropological Papers*, Vol. 16, Part 7, 1921).

person pledges himself to give a sun dance if he survives his crisis. It is also a means of acquiring supernatural power. Masochistic torture on the part of some dancers is seen as a sacrifice to supernatural powers who are moved to pity by man's devotion.

To the Shoshones the sun dance is primarily a curing ceremony and one designed to bring general well-being to the entire tribe. It is almost wholly a purificatory rite with emphasis (in the minds of the Shoshones) upon cleansing of the body and spirit, the shedding and "blowing away" of badness. Self-torture is wholly absent.²⁰ For the closely related Utes the meaning of the dance is quite similar, although there is possibly more emphasis upon dreaming.²¹

In the case of the Comanches it is doubtful that the sun dance had acquired any meaning, since the one and only sun dance they held was a prelude to disaster never to be repeated.²²

The function of the sun dance varied as it was worked into one tribal culture after another. Among the buffalo hunters of the middle of the century its chief function was that of tribal integration. The scattered bands that had been eking out the winter in separation were brought together in the early summer for a grand socializing prior to the communal buffalo hunt. For individuals the dance functioned to relieve anxiety. It was an escape from danger. It also expressed subconscious submissiveness to the dominant supernatural—self-imposed hunger and thirsting, bloody immolation of the self in gratification of the spirit forces. It functioned to make more probable the acquisition of power through visions by means of heightened social suggestion. As the dances are performed on the reservations today they function mostly as reinforcers of tribal integrity in the face of the disintegrating acids of white civilizational contact.²³

The Comanche sun dance in its one performance functioned as a messianic vehicle, a tribal unifier, and a stimulator of courage to undertake the annihilation of the whites.

Diffusion may be of a whole complex of the order just discussed. In this situation the block of traits *en gros*, but not *in toto*, is taken over by the receiving culture. Changes take place in form, meaning, and function.

²⁰ E. A. Hoebel, "The Sun Dance of the H3kandika Shoshone" (*American Anthropologist*, Vol. 39, 1935), p. 580.

²¹ M. K. Opler, "The Integration of the Sun Dance in Ute Religion" (*American Anthropologist*, Vol. 43, 1941), pp. 550-572.

²² Cf. E. A. Hoebel, "The Comanche Sun Dance and Messianic Outbreak of 1873" (*American Anthropologist*, Vol. 43, 1941), pp. 301-303.

²³ J. W. Bennett, "The Development of Ethnological Theories as Illustrated by Studies of the Plains Indian Sun Dance" (*American Anthropologist*, Vol. 46, 1944), pp. 162-181.

Diffusion and resistances to diffusion also occur with respect to more minuscule elements of culture. Minor items of material culture may remain wholly constant in form but be given entirely altered use, meaning, and function in the accepting culture. The external appearance of the result is often ludicrous in the eyes of the donors. An explorer may give a used film spool to a native, who receives it with delight, puts it through the slit in his ear-lobe, and proudly struts his beauty. The form of the spool is unaltered, but its use becomes that of an ear labret, its meaning aesthetic, and perhaps also magical, and its function that of prestige enhancement and ego gratification. The spool is culturally acceptable because it readily fits into the context of the native culture in a positive way.

On the other hand, traits may be rejected because their form is associated with negatively colored uses, meanings, and functions.

In a Northern Cheyenne peyote meeting the author once became interested in a decorative staff used in the ritual. It seemed to be carved with figures of bison quite similar to those of the Franco-Cantabrian cave art. The thought was intriguing. Upon closer examination, however, the carved scenes proved to be those of toreadors and charging bulls. There was also the Mexican eagle sitting on his cactus. But the snake in his claws had been scraped out with a knife. Black Wolf, the peyote leader, explained that the staff came from Mexico, and he pointed out that the eagle is good medicine. The toreador confronting the bull has connotations of the vision-seeking Indian confronted by a bison. However, "those people down there worship snakes, but we don't. So we took the snakes out. We can't have any snakes in our ceremony." The Cheyennes in point of fact are more than neutral with respect to snakes. In their mythology the Horned Snake (= Plumed Serpent) is a creature much to be feared and avoided.

Barnett has detailed a number of such rejections for several northern California tribes. When the bobbing of women's hair came into vogue, it met heavy resistance because that hair form was believed to cause death. Corsets and hairpins were rejected at first because they resemble the warrior's rod armor and the bone pins that he used in his hair.²⁴

The likelihood of misinterpretation of the Christian rite of communion by the Tsimshian Indians induced one wise and not too doctrinaire Episcopalian missionary to omit the ritual from his services. Cannibalism among the Northwest Coast Indians, although quite different in meaning for the Indians, was too close to the communion in form and function to risk presentation of the Christian rite. Not only in this but in other points as well did Duncan, the missionary in question, deliberately and as a

²⁴ Barnett, *op. cit.*, pp. 31-32.

matter of policy eliminate "many of the potential danger spots in Christian metaphysics for a native whose only basis for interpreting new belief was in terms of the old."²⁵

This fundamental anthropological fact (that in cultural transference a trait or complex will be evaluated and rejected, or accepted and modified, in terms of the meaning it has for the receiving people) is one of the most difficult principles for professional civilizers (be they teachers, officials, or missionaries) to perceive and to apply. The mischief worked in consequence of this ignorance is mountainous.

Transfer of form with alteration of meaning and function is the most common type of intercultural exchange.

Occasionally, the obverse situation occurs; an alien people present a trait strange and new in form but familiar in meaning and function. The usual tendency is then for the receiving people to accept the idea but to alter the formal expression of it. This is the sort of thing that occurs when a Chinese weaver portrays Jesus in a portrait rug as a veritable Chinese shepherd tending a goat. In like manner, when an ardent missionary preached the concept of the Holy Ghost and direct revelation to the Tsimshians at Metlakatlan, British Columbia, to whom spirit possession

²⁵ H. C. Barnett, "Applied Anthropology in 1860" (*Applied Anthropology*, Vol. 1, 1942), p. 24.



Fig. 34-2. Acculturation. Kwakiutl memorial pole. Alert Bay, British Columbia, 1950. (*Orbit Films*.)

was a violent part of their indigenous religion, they responded by putting on ecstatic dances four or five days long in which they captured the power of God in the manner of inculcating spirit power in cult initiates in the old Dionysian way.

A very special type of diffusion situation has been discussed by Kroeber under the heading of *stimulus diffusion*.²⁶ This is the sort of diffusion that occurs when the general idea of a culture trait or complex is transferred from one people to another without a transmission of the actual detailed content. The content of the pattern is more or less wholly invented by the borrowers of the idea. Sequoya, the Cherokee inventor of the syllabary used by the Cherokees for writing their tongue, got the idea of writing from contact with whites, but he did not learn to write the English language. He took some alphabetic symbols directly from English, modified some, and invented others. His English symbols, however, bear no relation to the English phonetic system. He made them stand for Cherokee syllables. He took the idea but not the form of writing.

Stimulus diffusion as a process stands midway between independent invention and genuine diffusion. Awareness of a need or an inventive possibility is stimulated by the presentation of a trait or a complex from an alien source. The stimulated people, who lack the trait, attempt independently to invent an equivalent of it.

ACCULTURATION

The diffusion processes that have been under discussion are all aspects of a specialized process called *acculturation* in modern anthropological literature. It is the process of culture change that occurs when a culture undergoes drastic alterations in the direction of conformity to another culture from which it borrows numerous traits or principles. The acculturating society, although drastically modified, retains its discrete identity. It becomes adjusted to, but not assimilated in, the dominant society. Most of our Indian tribes have made adjustments through acculturation. A few have become assimilated, and others have suffered annihilation, as a result of social and cultural contact with whites. The early contacts, incidentally, were such as lead to diffusion. Trappers, traders, and missionaries brought new traits to the Indians and borrowed in return buckskin clothes, canoes, snowshoes, tobacco, corn, maple sirup, etc. Diffusion was stimulated, but there was not yet acculturation. Only when settlers arrived to disorganize the ecological and economic basis of Indian life, and soldiers and administrators disorganized the political structure, did the setting for accultura-

²⁶ A. L. Kroeber, "Stimulus Diffusion" (*American Anthropologist*, Vol. 42, 1940), pp. 1-20.

tion take shape. The white colonizers continued to borrow a few ideas and traits from the Indians, but there has been no acculturation in that direction. On the other side the Indians were posed by manifest destiny with the dictum: "Acculturate—or else."²⁷

INDEPENDENT INVENTION

Very little attention has been given to parallelism, or independent invention, in this discussion for the reason that relatively few of the total mass of cultural traits possessed and shared by the peoples of the world have been invented more than once. This is not to take an extreme diffusionistic stand and deny the occurrence of independent invention. Although manifold, the possibilities in human culture are limited. Man is physiologically quite homogeneous the world over. His psychological mechanisms seem to be almost universally standardized. The problems that he faces tend to have much in common. Within the confines of limited possibilities the same solutions to similar problems sometimes recur without any historical contact between the societies involved.

Yet it is clear that cultures grow more through cross-fertilization and diffusion than in isolation through independent invention.²⁸ There is no surer way to destroy the growth vigor of a culture than to attempt to keep it "pure." Isolated cultures invariably stagnate. The world's highest flowering of cultures has almost without exception occurred at crossroads of culture contact.²⁹ The peripheral cultures of the Australians, Tasmanians, Fuegians, and African Bushmen are all testimonials to the sterilizing effects of isolation.

Too much culture contact may be a dangerous thing, however, as in the case of the too universalistic scholar who learned less and less about more and more, until he became intellectually unbuttoned. A culture may lose its integration, its people become disorganized, and its society destroyed or seriously impaired by a too sudden exposure to the culture of a more powerful society.

As yet we know very little concerning the dynamics of the ebb and flow of particular cultures, why they are so vigorous and dynamic at given periods in their history, why at other times they fall into desuetude. The formalistic schemes of a Spengler or a Toynbee are of no great

²⁷ See R. Linton (ed.), *Acculturation in Seven American Indian Tribes*; M. J. Herskovits, *Acculturation*; O. LaFarge, *The Changing Indian*.

²⁸ H. G. Barnett, in his work, *Innovation*, provides a thoroughgoing theoretical approach to the whole problem.

²⁹ The Maya of Yucatán appear superficially to have been more or less isolated, but very few competent Americanists agree with the contention that "the Maya developed their unique civilization practically without influences from the outside." S. G. Morley, *The Ancient Maya*, p. 14.

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help, for they have not the means to reach the internal dynamics of the process. Anthropology has much work cut out for it in this area.

SUMMARY

Invention differs from discovery in that the latter brings to human cognition something that was preexistent; the former creates something new by conjunction of preexistent ideas or materials. All culture is the product of invention, but no culture is the product of inventions created solely by its builders. The inventory of traits in any culture shows more borrowed than independently invented elements. In the process of diffusion, each people selectively adopts or rejects the alien culture traits with which it comes in contact. This is done on the basis of the uses, meanings, and functions which they attribute to the new traits. A major problem in modern public health, technical aid, and missionary programs is to understand the attitudes of the intended beneficiaries of the innovations toward the new proposals. This can be done only in terms of their concepts of use, meanings, and functions.

Borrowing and the stimulus of new ideas are essential to cultural vitality, but too rapid an acceptance of diffused culture patterns often destroys the way of life of a people. Acculturation requires time and adaptability.

SELECTED READINGS

- Barnett, H. G.: *Innovation*. The most vigorous effort at systematic analysis of the processes of culture growth.
- Greenman, E. F.: "Material Culture and the Organism" (*American Anthropologist*, Vol. 47, 1945), pp. 211-231.
- Kroeber, A. L.: *Anthropology* (rev. ed.), Chaps. 11 and 12, entitled "Some Histories of Inventions: the Interplay of Factors" and "Culture Growths and Spreads." Contains many interesting examples.
- Singer, S., E. J. Holmyard, and A. R. Hall (eds.): *A History of Technology*. Definitive.

CHAPTER 35. The Evolution of Culture

THE FORMULATION and establishment of the principle of evolution is universally recognized as one of the great intellectual events of the nineteenth century. Contrary to common belief, its recognition and application in the field of sociology and anthropology were not a mere copying of Darwinism. The facts of social science had been pointing to the realization of evolution in culture ever since the seventeenth century.¹ Herbert Spencer had clearly fixed and formulated his version of the principle of evolution some years before Darwin formulated his masterwork. Comte, before the mid-point of the nineteenth century, had foreshadowed the thought of cultural evolution in considerable detail. Indeed, all scientific knowledge of the period was leading toward evolutionism. Spencer was influenced not only by his predecessors in social philosophy but also by the work of the embryologist von Baer and the great Lyell in geology. From Malthus's *Essay on Population*² Spencer derived the principle of the survival of the fittest. Darwin, too, was stimulated from the same source, for, as he acknowledged,

In October 1838 . . . I happened to read for amusement "Malthus on Population," and being very well prepared to appreciate the struggle for existence which goes on, . . . it at once struck me that under these circumstances favorable variations would tend to be preserved, and unfavorable ones to be destroyed. The result would be the formation of a new species.³

An excellent example, incidentally, of juxtaposition in invention. Darwin felt the need of some principle to explain the biological facts he had long since sensed; quite by accident he read Malthus, whose ideas combined with Darwin's to form the greatest thought invention of the era. Malthus, in turn, found in an essay by Benjamin Franklin the critical stimulus for

¹ See the writings of Bossuet (1681), Turgot (1750), Condorcet (1793), and Hume (1742).

² T. R. Malthus, *An Essay on the Principle of Population*.

³ F. Darwin (ed.). *The Life and Letters of Charles Darwin*, Vol. 1, p. 83.

his formulation of the reproductive capacities and consequent competition for survival of living things.⁴

NINETEENTH-CENTURY LINEAL EVOLUTIONISM

The aim of the nineteenth-century cultural evolutionists was to put flesh on the skeleton of prehistory that the archaeological successors to Boucher de Perthes were so assiduously exhuming from the earth. How did ancient man organize his life and what changes in social culture accompanied technological evolution?

Lewis Henry Morgan (1818–1881) reacted to his firsthand knowledge of the Iroquois Indians in much the same way as had the French Jesuit missionary Lafitau a hundred years before. Lafitau (1681–1746) had seen in the society of American Indians a clue to the understanding of ancient cultures when he wrote his *Customs of the American Savages Compared with Customs of Early Times*.⁵ Morgan took a similar position in his *Ancient Society, or Researches in the Lines of Human Progress from Savagery, through Barbarism to Civilization*. Morgan's thesis was well summed up in his own words:

Commencing, then, with the Australians and Polynesians, following with the American Indian tribes, and concluding with the Roman and Grecian, who afford the highest exemplifications respectively of the six great stages of human progress, the sum of their united experiences may be supposed fairly to represent that of the human family from the Middle Status of savagery to the end of ancient civilization. . . . So essentially identical are the arts, institutions, and mode of life in the same status upon all continents, that the archaic form of the principal domestic institutions of the Greeks and Romans must even now be sought in the corresponding institutions of the American aborigines. . . . This fact forms a part of the accumulating evidence tending to show that . . . the course and manner of their development was predetermined, as well as restricted within narrow limits of divergence, by the natural logic of the human mind and the necessary limitations of its powers.⁶

The essence of linear evolution as summed up by Morgan is: (1) culture evolves in successive stages, which are (2) essentially the same in all parts of the world; from which (3) it is to be inferred that the order of the stages is inevitable (predetermined) and their content limited, because (4) mental processes are universally similar among all peoples (the

⁴ B. Franklin, "Observations concerning the Increase of Mankind," in *The Interests of Great Britain Considered*.

⁵ J. F. Lafitau, *Moeurs des sauvages américains comparées aux mœurs des premiers temps*, Paris, 1724.

⁶ L. H. Morgan, *Ancient Society*, p. 18; see also his "Social Evolution," in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 356–364.

psychic unity of man). In other words, when confronted with the conditions of Stage A, men universally respond by inventing the cultural forms of Stage B, in reaction to which they then produce Stage C, and so forth through the ages. The only difference is in the rate of speed with which they move through the several stages.

Sir Edward Burnett Tylor, the late leading English evolutionist, put the same set of ideas even more succinctly than Morgan. In 1888 he wrote:

The institutions of man are as distinctly stratified as the earth on which he lives. They succeed each other in series substantially uniform over the globe, independent of what seem the comparatively superficial differences of race and language, but shaped by similar human nature acting through successively changing conditions in savage, barbaric and civilized life.⁷

This concept of evolution is called *lineal* because it emphasizes a straight-line course of development for all societies. It is also called *parallelism* because it posits that all societies, even if completely isolated each from the others, would parallel each other's evolution.

Morgan tried to show what happened in the evolution of technology, property, kinship, and political structure. Tylor concentrated on religion. Among other early cultural evolutionists Bachofen, McLennan, Lang, Frazer, Westermarck, Brinton, and Haddon stand out as leaders.⁸

THE BOASIAN REACTION

With the turn of the century a strong reaction, led by Franz Boas in America, set in against much of the work of these men.

The main line of the Boasian attack was in terms of the numerous errors in fact that were exposed by careful empirical field study. To a considerable degree the nineteenth-century cultural evolutionists were more social philosophers than empirical scientists. They grasped the large idea of evolution and then moved in to formulate detailed schemes of the development of various aspects of culture without waiting for sufficient factual data to come in. Indeed, except in the case of Morgan, they hardly bothered themselves to raise a finger to add to factual knowledge

⁷ E. B. Tylor, "On a Method of Investigating the Development of Institutions: Applied to Laws of Marriage and Descent" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 18, 1888).

⁸ E. B. Tylor, *Researches into the Early History of Mankind; Primitive Culture; Anthropology*. L. H. Morgan, *Ancient Society*. J. K. Bachofen, *Das Mutterrecht*. J. F. McLennan, *Primitive Marriage; The Patriarchal Theory*. A. Lang, *Myth, Ritual, and Religion; The Making of Religion; Social Origins*. J. G. Frazer, *The Golden Bough; Totemism and Exogamy*. E. Westermarck, *The History of Human Marriage*. D. G. Brinton, *Religions of Primitive People*. A. C. Haddon, *Evolution in Art*.

by means of field studies. Truly, they earned the epithet "armchair anthropologists." Too much of their work rested on a priori premises and uncritical handling of the tales of travelers and accounts of officials and missionaries, who were themselves in most cases without scientific training; they mistook masses of library references for critical scholarship.

Above all, they blindly ignored the great variability of cultures in the patterning of their inner details and in their adjustments to different types of ecological environments.

With Boas anthropology planted its feet firmly upon empiricism. Primitive cultures were fast disappearing. The job to do was to get in the field and make objective studies before the sands of time ran out. As factual knowledge scientifically obtained began to come in and to be collated, the known errors in the current evolutionary schemes began to pile up.

As the recognized errors increased, so did the Boasian rejection of evolutionism as then practiced.⁹ To pull the pillars from under the edifices of lineal evolutionism was often a major interest of American anthropologists, and the enthusiasm for the truth that Boas insisted upon became inverted in some extreme instances to scorn of all theory.¹⁰

Scientific caution so hypertrophied to scientific negativism, that in 1939 Kluckhohn reported the mental state of American anthropologists to be such that "to suggest something is 'theoretical' is to suggest that it is slightly indecent."¹¹

Along another line of history, cultural evolutionism has suffered the fate of becoming caught up in the mesh of communist revolutionary dogma. Marx and Engels embraced Morgan and turned his particular schema of evolutionary development into a scathing, often bitter, treatise on the origin of bourgeois sex and family morals in their relations to the institution of private property.¹² They accepted many of the specific errors of Morgan and compounded them. They undertook to turn evolutionism into an ideological weapon to assure the downfall of capitalism and the triumph of the proletarian communist state. Evolution was to make Manifest Destiny of *The Communist Manifesto*.

⁹ In an outburst of antievolutionistic fanaticism, such a highly respectable American anthropologist as Berthold Laufer could be so immoderate as to write of lineal evolutionism, "the most insane, sterile, and pernicious theory ever conceived in the history of science." B. Laufer, "Review of: R. H. Lowie, *Culture and Ethnology*" (*American Anthropologist*, Vol. 20, 1918), p. 90.

¹⁰ "I must confess that I am in a state of mind where I would no longer give a dime for a new theory, but I am always enthusiastic about new facts." B. Laufer, *loc. cit.*

¹¹ C. Kluckhohn, "The Place of Theory in Anthropological Science" (*The Philosophy of Science*, Vol. 6, 1939), p. 333.

¹² F. Engels, *The Origin of the Family, Private Property, and the State in the Light of the Researches of Lewis Henry Morgan*.

On two counts this happenstance further discredited evolutionism with the early Boasian group. It doubled the methodological and factual errors of Bachofen and Morgan. And, in the opinion of Radin, the agglutinated revolutionary interpretation of cultural evolution was intellectually and emotionally antipathetic to the "anti-evolutionists."¹³

Thus on scientific grounds certainly, and on socio-economic-political grounds possibly, the principle of lineal evolution suffered almost a total eclipse in the anthropology of this country, as also in England and Germany.

Only among avowed socialists and communists did old-time evolutionism prevail. And Morgan, capitalist lawyer and railroad manager, sits enshrined as a minor communist saint with his *Ancient Society* as one of the sacred books.¹⁴

The problem of anthropological science today is to divorce the principle of evolution from Morganism and Marxism and to redevelop it in scientific terms.

CULTURAL EVOLUTION TODAY

By 1945 the Boasian reaction had simmered down and a new look at cultural evolution became possible. The past decade has seen an emergence of a neo-evolutionism of two sorts. One is called *multilineal evolution* by its leading exponent, Prof. Julian H. Steward. The other may be called *general evolution*.

Because multilineal evolution is narrower in scope, it will be discussed first. It does not attempt, at least at this stage, to develop a comprehensive set of evolutionary principles to cover the growth of culture from earliest prehistoric times to the present. Rather, it deliberately narrows its scope to focus on parallel developments in limited aspects of the cultures of specifically identified societies. It undertakes to determine whether identifiable sequences of culture change occur in the same order in independent cultures. When such apparently similar sequences are identified, it then seeks to determine whether like causes have produced them.¹⁵

¹³ P. Radin, "The Mind of Primitive Man" (*New Republic*, Vol. 98, 1939), p. 303.

¹⁴ For a sober appraisal of Morgan, see R. H. Lowie, "Lewis Henry Morgan in Historical Perspective," in *Essays in Anthropology in Honor of Alfred Louis Kroeber*, pp. 169-181; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 364-377.

¹⁵ "Multilineal evolution is essentially a methodology based on the assumption that significant regularities in cultural change occur, and it is concerned with the determination of cultural laws. It is inevitably concerned also with historical reconstruction, but it does not expect that historical data can be classified in universal stages." J. H. Steward, "Evolution and Process," in A. L. Kroeber (ed.), *Anthropology Today*, p. 318.

In other words, it assumes that it is impossible to identify meaningful stages of evolution through which all cultures go or must go, because cultures are too diverse in their variabilities. On the other hand, American archaeologists in their contemporary attempts to handle the data of prehistory in this part of the world—data that have accumulated as a tremendous body of fact—have had recourse to formulation of a series of eras of prehistoric culture growth.¹⁶ Various terminologies have been used, but in general the series of stages runs: Lithic and Archaic, Formative, Classic or Florescent, and Expansionist or Militaristic. The Lithic represents the New World Stone Age hunting and gathering cultures of the immigrants and their descendants (20,000 to 3000 B.C.). The Formative period is one in which a people settle down and begin Neolithic gardening, around 3000 B.C., and begin the development of sedentary arts. In the Florescent or Classic era the potentials set in the Formative cultures are developed and elaborated. Local distinctiveness of cultures becomes marked as regional styles are elaborated. In the Expansionist era the well-established local cultures vie for military and political dominance through a continuing series of wars.¹⁷

Stimulated by the trend in American archaeological thought, and apparently also by V. Gordon Childe's work on European prehistory and by Karl Wittfogel's on China, Julian Steward, in 1949, proposed the hypothesis that similar sequences of cultural evolution occurred in the emergence of the high cultures of Peru, Mesoamerica, Mesopotamia, Egypt, and China. For identification of the sequences of eras Steward set the following categories: preagricultural (Paleolithic and Mesolithic), incipient agricultural, and formative eras, an era of regional development and florescence, then an era of cyclical conquests.¹⁸ In 1954 Steward elaborated the theory and known facts of multilineal evolution in considerable detail.¹⁹

Whereas it was noted in the first edition of this book (1949) that constructive work in evolutionary analysis had been in abeyance for forty years, this is certainly no longer the case. It marks one of the most significant changes in anthropology in the current decade.

General evolution differs from multilineal mainly in the level of its formulations. It attempts to establish evolutionary trends for culture *in toto* rather than in limited cultures of comparable types. Its formulations

¹⁶ The years 1947–1948 saw the publication of half a dozen monographs or papers organized on this idea; previously the notion had been no more than hinted at.

¹⁷ For a more detailed and technical summing up of the several approaches using this type of schema, see G. R. Willey, "Archaeological Theories and Interpretations: New World," in A. L. Kroeber (ed.), *Anthropology Today*, pp. 361–385.

¹⁸ J. H. Steward, "Cultural Causality and Law: A Trial Formulation of the Development of Early Civilizations" (*American Anthropologist*, Vol. 51, 1949), pp. 1–27; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 322–340.

¹⁹ J. H. Steward, *Theory of Culture Change*.

are consequently much broader in scope. They are of the type that V. Gordon Childe, Leslie White, and Robert Redfield have formulated with respect to the great changes in culture at large that accompany the development from Paleolithic to Neolithic to Metal Age technological bases.²⁰ General evolution does not assume that every culture develops exactly comparable details in culture patterns on comparable levels of technology. But it does hold that broad-scale trends in the emergence of cultural forms are demonstrable.

The processes by which new cultural forms come into existence are fundamentally different from those that produce genetic change. But even as life forms are adaptive, so also are cultural ones. Furthermore, there is a remarkable similarity in the over-all principles of biological and cultural evolution.

Biological evolution "means primarily the passage from simplicity to complexity, from homogeneity to heterogeneity, which, from empirical observation of living creatures and their remains, may be deduced to have occurred and to be still occurring in the world of life."²¹

In like wise, cultural evolution may be taken to mean the passage from simplicity to complexity, from homogeneity to heterogeneity, which, from empirical observation of living societies and their material remains may be deduced to have occurred and to be still occurring in the world of social life among men.

To study the evolution of culture is to study the processes of differentiation of culture. To study the evolution of culture is to determine the courses along which human societies have arrived at more distinct patterns of behavior to fulfill more distinct functions. In writing on "The Reality of Social Evolution," MacIver has said: "The main interest of the evolutionary method is not the modification of specific form into specific form but the emergence of a variety of more specific forms from the less specific."²²

The process of social change and cultural modification in a particular society is best considered as *cultural change*, not *cultural evolution*. Evolution cannot be studied with reference only to a single form. Evolution deals with differentiation, and differentiation can only be referred to several forms.

Failure to hold fast to this principle has engendered confusion among both the earlier cultural evolutionists and their critics. Morgan, as Lowie has shown, did reconstruct unknown aspects of ancient societies in terms

²⁰ Or as indicated for legal evolution by the present author in Chap. 12, "The Trend of the Law," in E. A. Hoebel, *The Law of Primitive Man*.

²¹ J. Needham, "Evolution" (*Encyclopedia of the Social Sciences*, Vol. 5, 1931), p. 649.

²² R. M. MacIver, *Society: Its Structure and Changes*, p. 424.

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of his general evolutionary formula.²³ Morgan's analysis of American Indian house types was wholly vitiated because he had a predilection for an a priori scheme of evolution of clan and family; he specifically attributed earlier matrilineal clans to the patrilineal Ojibwa, for example, because according to his scheme it had to be that way.

Tylor, too, as Lowie has indicated, was guilty of the same error, though less crassly than Morgan.²⁴ At times, therefore, the early evolutionists did treat cultural evolution and the processes of social change (culture history) in a given society as one and the same thing. This is the fatal error.

One thing evolution as a working tool does not do, and cannot do, is to formulate a line of specific detailed development through which all species or societies must pass. A whale and a dog are both mammals and each is the product of evolutionary divergence, but the detailed phylogenetic histories of the two species are quite unlike, and the one cannot be transferred to the other. In sociocultural terms, the history of any particular society does not recapitulate the evolution of culture. It cannot, for evolution covers the differentiation of cultures as wholes and of institutions and customs within them. No one culture ever embraces all the patterns of all cultures, either past or present. From this it follows that the *history* of a given society is not to be reconstructed from general patterns of evolution.

It has not been difficult to demonstrate that diffusion and the accidents of historical contact between peoples with different levels and forms of culture play hob with any serial scheme of cultural development for *particular cultures*. Cultures grow, as was shown in the last chapter, mostly through acquisition of diffused traits. Whether a particular people is exposed to one or another form of a trait is often the result of sheer accident. The Cheyennes were clanless hunters and gatherers in their early habitat in the woods of the western Great Lakes region. When they moved west to settle among the Arikara in the Missouri River Valley, they learned gardening from their sedentary neighbors, and there is evidence that they acquired the rudiments of a maternal clan system. Had their migration led them southward to settle among the gardening Omahas, who have paternal clans, it is quite probable that they would have copied gardening and acquired the rudiments of a paternal clan organization.

Numerous comparable cases have led evolutionary critics to conclude that the consequences of diffusion disprove the principle of evolution. A false antagonism has been posed in the common phrasing of the prob-

²³ R. H. Lowie, *op. cit.*, pp. 171-172.

²⁴ R. H. Lowie, "Evolution in Cultural Anthropology" (*American Anthropologist*, Vol. 48, 1946), pp. 229-230.

lem, "Diffusionism vs. Parallelism," wherein parallelism is identified with evolutionism.²⁵

The established importance of diffusion vitiates absolute parallelism but not evolutionism. Diffusion is one of the processes whereby the products of evolution are distributed. Were it not for diffusion, evolution would be much slowed down and would truly creep along at a snail's pace. This is also true of biological evolution, of course, where traits are diffused through reproductive contacts.

The understanding of evolution requires us, therefore, to be able to abstract and separate the idea of a cultural form from its history in particular societies. We follow the degrees and varieties in development of the institution or artifact as such rather than its historical vicissitudes in a given culture. Above all, it must be remembered that evolution deals with differentiation through time.

Consider the evolution of the ax. The development and differentiation of the chipped flint hand ax in the Paleolithic Age leads from crude homogeneous pre-Chellean types without hafting up to the moderately variegated Chellean forms. Chellean forms could not come into being until the pre-Chellean types had preceded them. Differentiation between Chellean types and natural flint nodules was too great to be taken in one single step. In the Neolithic Age the introduction of two new technologies, abrasion and hafting, led to greater differentiation and complication in ax forms. The development of metallurgy continued the process in the Bronze and Iron ages, as numerous specialized types of axes were worked out. The process continues into the present with new differentiations developing as the need arises into varieties of woodsmen's steel axes, firemen's axes, and butchers' cleavers. A full study of the evolution of the ax would cover the emergence of every single type of ax that has ever been invented; it would also cover the development and differentiation of different meanings attributed to axes (e.g., the ax as a sacred symbol) and the social functions of axes. Developed and differentiated meanings and functions would be found to rest upon prior meanings and functions, for the more complicated patterns cannot come into being until the simpler ones have been in existence.

The fact that the Stirling Expedition brought steel axes to a certain group of Negritos in the mountains of Dutch New Guinea, who previously had had only stone axes, would be unimportant as far as the evolution of the ax is concerned. To be sure it is a significant fact in the history of those pygmies that the Stirling Expedition came bearing steel axes in the first quarter of the twentieth century. But that they leaped

²⁵ Cf. L. A. White, "Diffusion vs. Evolution" (*American Anthropologist*, Vol. 47, 1945), pp. 339-355.

from the Stone Age to the Iron age in a day does not invalidate any general formulation of the evolution of the *ax qua ax*.

If the reader will recall our discussions of food getting, housing, and handicrafts, he will see how the evolution of these forms and activities is implicit in the treatment of the materials.

The determination of the evolution of material artifacts is naturally much easier to accomplish than that of social forms, because with respect to form they lend themselves to direct archaeological evidence, even if not with respect to use, meaning, and function.

Yet, through the treatment of kinship (from *susu* to lineage to clan), of political organization (from local group to band to tribe to nation to empire confederacy or federation), of political leadership (from headman to chief to king, emperor, or president), of religious organization (from undifferentiated animism and *mana* to differentiated cults and churches), of specialization of religious personnel (from shamanism to priesthood), and of law (from limited private law to differentiated private law to increasing displacement of private law [torts] by public law [crime]), many expressions of evolutionary development in social organization have been made explicit in this book.

They aid in giving meaning to the materials of anthropology. Especially with respect to the development and relation of subsistence techniques (food gathering, hunting, gardening, pastoralism, and agriculture) has the evolutionary principle been of great use in organizing and interpreting the data of anthropology. The concept of evolution vitalizes the data of culture by fitting them into the larger framework of cultural dynamics.

It is purblindness to hold that

. . . the order of events in which they all [anthropologist, psychologist, and historian] deal in common is best studied without the complications of any attempted evolutionary arrangement. . . . The historian is not helped in the reconstruction of Plantagenet England by any scheme of cultures arranged according to an ascending scale of evolution.²⁶

Quite true, the historian will derive no facts of Plantagenet history from any knowledge of political evolution, but he most certainly will be able to deal more intelligently and understandably with his facts of Plantagenet, or any other, history, if he can bring a set of *sound* evolutionary concepts to bear upon them. This holds true also for the anthropologist.

It behooves the anthropologist to be scientifically eclectic in his approach to man and culture. The phenomena are complex. The concept of evolution is a tool of thought with which to handle one aspect of the data of anthropology. The concepts of basic personality structure and

²⁶ R. F. Benedict, "The Science of Custom," in V. F. Calverton (ed.), *The Making of Man*, pp. 809-810.

ideal personality types are yet others. The concepts and principles of functionalism, of linguistic analysis, of statistical treatment are still others among many more.

Indeed, as Lowie warned long ago, *there is no royal road to the comprehension of cultural phenomena*.²⁷ Nor is there any single road, though some may seem like broad avenues and others wandering bypaths.

Finally, as we draw to the close of this study, let us observe that the pace of evolution does not follow a steady curve. Cultural evolution manifests the characteristics that biologists have in their field come to call *emergent*. "Whether the process of evolution has taken place continuously or discontinuously is a problem which probably will never be solved," writes Needham, "for continuity and discontinuity are two alternating modes of scientific expression neither of which is permanently victorious."²⁸ Biological evolution takes a spurt and then settles down to slow development and differentiation until a new unbalance induces a new spurt. This is evolution by mutation combined with gradual modifications.

THE ENERGY THEORY OF CULTURAL EVOLUTION

White has emphasized that one important consequence of cultural evolution is the progressive increase of the amount of energy put under control for utilization by men.²⁹ The potential daily average energy output of a healthy man is estimated as equal to approximately fifty pounds lifted one foot in one second, or roughly one six-hundredth of a horsepower hour. Counting infants, the sick, and feeble adults, the daily amount of energy per capita available in the earliest societies was approximately one twelve-hundredths of a horsepower hour per person. For a very primitive local group this would amount to an energy utilization of no more than one twenty-fourth of a horsepower hour of energy a day for the entire society. Not much could be accomplished with that productively. As long as man was restricted to such a level, the development of culture was destined to be limited. This condition prevailed throughout the Old Stone Age and was characteristic of all societies before the development of hoe culture and the domestication of animals.

The great revolution of the Neolithic Age was wrought by the domestication of plants and animals. Domestication of plants increased man's control over solar energy, which is stored in plants. Domestication of animals made him an exploiter of animal energy. More efficient tools re-

²⁷ R. H. Lowie, *Primitive Society*, p. 107.

²⁸ Needham, *op. cit.*, p. 649.

²⁹ L. A. White, "Energy and the Evolution of Culture" (*American Anthropologist*, Vol. 45, 1943), pp. 335-356. Cf. also W. F. Cottrell, *Energy and Society*.

duced energy waste and new tools made possible new applications of energy. All culture expanded rapidly; the mode of life changed from that of hunters to gardeners and pastoralists. Old institutions and customs went down and new ways had to be worked out. The savages became barbarians.

The ages of Bronze and Iron are but extensions of the Neolithic, which fulfilled its potential in the Urban Revolution. Metal was substituted for stone. Increased efficiency in tools leading to stepped-up productiveness in handicraft industries and gardening (which the plow transformed to agriculture) gradually expanded the cultures of the Old World.

The next cultural revolution awaited the harnessing of steam, the invention of the internal-combustion engine, and the artificial production of electricity. With the industrial revolution, feudalism gave way to modern capitalism. The reorganization of society and culture shook the modern world through and through. The repercussions are still with us.

In 1939, according to Millikan's estimates,³⁰ we in the United States expended about $13\frac{1}{2}$ horsepower hours of electrical and internal-combustion-engine energy per day per person. This has been made possible by the technological evolution of our culture, which in turn has been made possible in large part by the increases in energy released and brought under control.

In 1945 the most stupendous energy conquest of all time was accomplished. Einstein's theory of the equivalence of mass and energy ($E = mc^2$) indicates that 1 kilogram (2.2 pounds) of matter, if it could be converted entirely into energy, would release 25 billion kilowatt-hours of energy, or approximately 33 billion horsepower hours. Splitting the uranium atom, as was first done in 1945, converted 0.1 of 1 per cent of the uranium mass into energy. Thirty-three million horsepower hours of energy could then be released from 1 kilogram of uranium.³¹ And this was but the beginning, for not only has the efficiency of techniques for splitting the atom been improved, but we have learned how to release energy through fusion of the hydrogen atom since then.

What do the laws of evolution teach us as to the meaning of this new outburst of energy? As the Neolithic technologies induced a thoroughgoing revision of previously existing societies and drove the expansion of culture ahead in a great spurt, as the technological innovations of the industrial revolution forced similar alterations in the ways of men, so the atomic age will be one in which old modes will become quickly outworn. We are destined to see such cultural changes in the new era that has burst upon us as will make all prior evolutionary development seem static by comparison.

³⁰ R. A. Millikan, "Science and the World Tomorrow" (*Scientific Monthly*, Vol. 37, 1939), p. 211.

³¹ H. D. Smyth, *Atomic Energy for Military Purposes*, pp. 2, 224.

Certain cultural forms have persisted through all human vicissitudes. Our studies have shown what they are. They may continue into the future. Other cultural forms, like the sovereign national state, are clearly incompatible with present prospects. Rational men will turn all their knowledge of society and culture, all their skills of social science analysis, to making the needed cultural changes as quickly and as effectively as possible.

The near future is bound to continue to be unsettled and painful. With atomic wars it may become a nightmare. On the other side of the probable dark age of transition, however, is the possibility of a great era.

Man, too, may take an emergent spurt. Physically and neurologically there has been little evolutionary development in the human stock for 50,000 years and more. Radiation does strange things to the germ plasm. A notable increase in gross mutations results. Mutation produces monstrosities, but it may also produce traits that break through the ceiling of present known aptitudes and capacities of men. It may well be that a new order of men is in the offing as well as a new level of culture.

SELECTED READINGS

- Childe, V. G.: *Man Makes Himself* and *What Happened in History*. Two basic books on the evolution of culture by the distinguished British prehistorian who established the concept of the urban revolution.
- Coon, C. S.: *The Story of Man*. A very well-written, panoramic view of the world-wide growth and diffusion of the major cultures, with emphasis on the Neolithic complex.
- Cottrell, W. F.: *Energy and Society*. A searching application of the energy theory of society.
- Linton, R.: *The Tree of Culture*. Similar to Coon's book in scope and organization, but more detailed.
- Morgan, L. H.: "Social Evolution," in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 356-364; should be read in conjunction with the following article in the *Readings* by R. H. Lowie, "Lewis Henry Morgan in Historical Perspective."
- Redfield, R.: *The Primitive World and Its Transformations*. A stimulating discussion of the changes in moral and social outlook that are fostered by the shift from primitive to urban life.
- Steward, J. H.: *Theory of Culture Change: The Methodology of Multilineal Evolution*. An exposition of a contemporary approach to the study of cultural evolution.

Bibliography

- AARNE, A.: *Die Tiere auf der Wanderschaft* (Folklore Fellows Communications, No 11, 1913).
- ADAMIC, L.: *The Native's Return: An American Immigrant Visits Yugoslavia and Discovers His Old Country* (New York, 1934).
- AGINSKY, B. W.: "An Indian's Soliloquy" (*The American Journal of Sociology*, Vol. 46, 1940), pp. 43-44.
- , and P. H. BUCK: "Interacting Forces in the Maori Family" (*American Anthropologist*, Vol. 42, 1940), pp. 195-210.
- ALDRIDGE, A. O.: "The Meaning of Incest from Hutcheson to Gibbon" (*Ethics*, Vol. 61, 1951), pp. 309-313.
- AMSDEN, C.: "The Loom and Its Prototypes" (*American Anthropologist*, Vol. 34, 1932), pp. 216-315.
- : *Navaho Weaving* (Albuquerque, 1949).
- ASHLEY-MONTAGU, M. F.: *Coming into Being among the Australian Aborigines* (New York, 1938).
- : *Man's Most Dangerous Myth: The Fallacy of Race* (2d ed., New York, 1945).
- : "On the Origin of the Domestication of the Dog" (*Science*, Vol. 96, 1942), pp. 111-112.
- ASHTON, E. A.: "The Endocranial Capacities of the Australopithecines" (*Proceedings of the Zoological Society of London*, Vol. 120, 1950), pp. 715-721.
- ATKINSON, J. J.: *Primal Law* (London, 1903).
- BACHOFEN, J. K.: *Das Mutterrecht: eine Untersuchung über die Gynaiokratie der alten Welt nach ihrer religiösen und rechtlichen Natur* (Stuttgart, 1861).
- BACON, E.: "A Preliminary Attempt to Determine the Culture Areas of Asia" (*South-western Journal of Anthropology*, Vol. 2, 1946), pp. 117-132.
- BAITSELL, G. A. (ed.): *The Evolution of Earth and Man* (New Haven, 1929).
- BALFOUR, H.: *The Evolution of Decorative Art* (London, 1893).
- BARNETT, H. G.: "Applied Anthropology in 1860" (*Applied Anthropology*, Vol. 1, 1942), pp. 19-32.
- : "Culture Processes" (*American Anthropologist*, Vol. 42, 1940), pp. 21-48.
- : *Innovation: The Basis of Cultural Change* (New York, 1953).
- : "The Nature of the Potlatch" (*American Anthropologist*, Vol. 40, 1938), pp. 349-358.
- BARNETT, L.: "The Epic of Man: Part I. Man Inherits the Earth" (*Life*, Nov. 7, 1955), pp. 73ff.
- : "The Epic of Man: Part II. The Dawn of Religion" (*Life*, Dec. 12, 1955), pp. 76-96.

624 Bibliography

- BARRETT, S. A.: "Pomo Indian Basketry" (*University of California Publications in American Archaeology and Ethnology*, Vol. 7, 1908).
- BARTH, F.: "Father's Brother's Daughter Marriage in Kurdistan" (*Southwestern Journal of Anthropology*, Vol. 10, 1954), pp. 164-171.
- BARTON, R. F.: "Ifugao Economics" (*University of California Publications in American Archaeology and Ethnology*, Vol. 15, No. 5, 1922).
- : "Ifugao Law" (*University of California Publications in American Archaeology and Ethnology*, Vol. 15, 1919).
- : *Philippine Pagans: The Autobiographies of Three Ifugaos* (London, 1938).
- : *The Half-way Sun: Life among the Headhunters of the Philippines* (New York, 1930).
- : *The Kalinga: Their Institutions and Custom Law* (Chicago, 1949).
- : *The Religion of the Ifugaos* (American Anthropological Association, Memoir 65, 1946).
- BASCOM, W.: "The Sociological Role of the Yoruba Cult-Group" (American Anthropological Association, Memoir 63, 1944).
- BAUMAN, H.: "The Division of Work according to Sex in African Hoe Culture" (*Africa*, Vol. 1, 1928), pp. 289-318.
- BEAGLEHOLE, E.: "Character Structure: Its Role in the Analysis of Interpersonal Relations" (*Psychiatry*, Vol. 7, 1944), pp. 144-162.
- : *Property: A Study in Social Psychology* (London, 1931).
- BELO, J.: "A Study of a Balinese Family" (*American Anthropologist*, Vol. 38, 1936), pp. 12-31.
- BENEDICT, R. F.: "Marital Property Rights in Bilateral Society" (*American Anthropologist*, Vol. 38, 1936), pp. 368-373.
- : *Patterns of Culture* (New York, 1937).
- : *Race: Science and Politics* (New York, 1940).
- : "Religion," in F. Boas (ed.), *General Anthropology* (New York, 1938), Chap 14.
- : *The Concept of the Guardian Spirit in North America* (American Anthropological Association, Memoir 29, 1923).
- : "The Science of Custom: The Bearing of Anthropology on Contemporary Thought," in V. F. Calverton (ed.), *The Making of Man* (New York, 1931), pp. 805-817.
- BENNETT, J. W.: "The Development of Ethnological Theories as Illustrated by Studies of the Plains Indian Sun Dance" (*American Anthropologist*, Vol. 46, 1944), pp. 162-181.
- BENNETT, W. C., and R. M. ZINGG: *The Tarahumara: An Indian Tribe of Northern Mexico* (Chicago, 1935).
- BLACKWOOD, B.: *Both Sides of Buka Passage* (Oxford, 1935).
- BLOOMFIELD, L.: *Language* (New York, 1933).
- BOAS, F.: "Anthropology" (*Encyclopedia of the Social Sciences*, Vol. 2, 1930), pp. 73-100.
- : *Anthropology and Modern Life* (rev. ed., New York, 1932).
- : *Decorative Designs of Alaskan Needlecases* (United States National Museum, Annual Reports, Vol. 39, 1908), pp. 221-344.
- : *Primitive Art* (Oslo, 1929).
- : *Social Organization and Secret Societies of the Kwakiutl Indians* (United States National Museum, Annual Reports, 1895).
- : *The Central Eskimo* (Bureau of American Ethnology, Annual Report 6, 1888), pp. 399-669.
- : *Tsimshian Mythology* (Bureau of American Ethnology, Annual Report 31, 1916), pp. 393-558.

- BOAS, F., and others: *General Anthropology* (New York, 1938).
- BOGORAS, W.: "The Chukchee I: Religion" (*Jesup North Pacific Expedition*, Vol. 7, 1904-1909).
- BOULE, M.: *Les Hommes Fossiles* (Paris, 1921).
- BOYD, W. C.: *Genetics and the Races of Man: an Introduction to Modern Physical Anthropology* (Boston, 1950).
- : "The Contributions of Genetics to Anthropology," in A. L. Kroeber (ed.), *Anthropology Today* (Chicago, 1953), pp. 488-506.
- BRAIDWOOD, R. J.: "The Interrelations of Core and Flake Tool Traditions in Europe," in *Human Origins, Selected Readings*, Series 2 (2d ed., Chicago, 1946), pp. 145-152.
- BRAM, J.: *An Analysis of Inca Militarism* (American Ethnological Society, Monograph 4, 1941).
- BREIUL, H.: *Four Hundred Centuries of Cave Art* (New York, 1950).
- BREW, J. O.: "The Metal Ages: Copper, Bronze and Iron," in H. L. Shapiro (ed.), *Man, Culture, and Society* (New York, 1956), Chap. 5.
- BRIFFAULT, R.: "Group Marriage and Sexual Communism," in V. F. Calverton (ed.), *The Making of Man* (New York, 1931).
- : *The Mothers: The Matriarchal Theory of Social Origins* (3 vols., New York, 1927).
- BRINTON, D. G.: *Religions of Primitive People* (New York, 1897).
- BROUNER, W. B., and Y. M. FUNG: *Chinese Made Easy* (Leiden, 1935).
- BUCK, P. H.: *Vikings of the Sunrise* (New York, 1938).
- BUNZEL, R.: "The Pueblo Potter" (*Columbia University Contributions to Anthropology*, Vol. 8, 1929).
- BURGESS, E. W.: Introduction in E. F. Frazier, *The Negro Family in the United States* (Chicago, 1939).
- BUSIA, A. K.: *The Position of the Chief in the Modern Political System of Ashanti: A Study of the Influence of Contemporary Social Changes on Ashanti Political Institutions* (Oxford, 1951).
- CALVERTON, V. F. (ed.): *The Making of Man: An Outline of Anthropology* (New York, 1931).
- CARDOZO, B. N.: *The Growth of the Law* (New Haven, 1924).
- CARROL, J. B.: *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf* (New York, 1955).
- CARTER, G. F.: "Origins of American Indian Agriculture" (*American Anthropologist*, Vol. 48, 1946), pp. 1-21.
- CHAMBERLIN, T. C.: *The Origin of the Earth* (Chicago, 1916).
- CHAPPLE, E., and C. COON: *Principles of Anthropology* (New York, 1942).
- CHILDE, V. G.: *The Dawn of European Civilization* (New York, 1925).
- : *Man Makes Himself* (rev. ed., New York, 1951).
- : *What Happened in History* (London, 1942).
- CHRISTENSEN, J. B.: *Double Descent Among the Fanti* (Behavior Science Monographs, New Haven, 1954).
- CLARK, J. G. D.: *Prehistoric Europe: The Economic Base* (New York, 1952).
- CLARK, W. E. LE G.: *History of the Primates: An Introduction to the Study of Fossil Man* (4th ed., London, 1954).
- : "Hominid Characteristics of the Australopithecine Dentition" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 80, 1952), pp. 37-54; reprinted in the *Yearbook of Physical Anthropology*, 1951 (New York, 1952), pp. 163-187.

626 Bibliography

- CLARK, W. E. LE G.: *The Fossil Evidence for Human Evolution: An Introduction to the Study of Paleanthropology* (Chicago, 1955).
- COLD SPRING HARBOR SYMPOSIA ON QUANTITATIVE BIOLOGY: *Origin and Evolution of Man* (Vol. 15).
- COLE, G. D. H.: "Inheritance" (*Encyclopedia of the Social Sciences*, Vol. 8, 1932), pp. 35-43.
- COMTE, A.: *Positive Philosophy* (trans. from the French by H. Martineau, London, 1893).
- COOK, W. W.: "Ownership and Possession" (*Encyclopedia of the Social Sciences*, Vol. 11, 1933), pp. 521-525.
- COON, C.: *The Races of Europe* (New York, 1936).
- : *The Story of Man: From the First Human to Primitive Culture and Beyond* (New York, 1955).
- , S. M. GARN, and J. B. BIRDELL: *Races: A Study of Race Formation in Man* (Springfield, 1950).
- COOPER, J. M.: "Is the Algonquian Family Hunting Ground System Pre-Columbian?" (*American Anthropologist*, Vol. 41, 1939), pp. 66-90.
- : "Mental Disease Situations in Certain Cultures" (*Journal of Abnormal and Social Psychology*, Vol. 29, 1934), pp. 10-17.
- : "The Yahgan," in J. H. Steward (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 1, pp. 81-107.
- : "The Patagonian and Pampean Hunters," in J. H. Steward (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 1, pp. 127-168.
- COTTRELL, W. F.: *Energy and Society: the Relation Between Energy, Social Change, and Economic Development* (New York, 1955).
- CUPPY, W.: *How to Tell Your Friends from the Apes* (New York, 1931).
- CURTIS, E. S.: *The Kwakiutl* (New York, 1919).
- CURWEN, E. C., and G. HATT: *Plough and Pasture: The Early History of Farming* (New York, 1953).
- DART, R. A.: "The Predatory Implemental Techniques of Australopithecus" (*American Journal of Physical Anthropology*, Vol. 7, 1949), pp. 1-16.
- DARWIN, F. (ed.): *The Life and Letters of Charles Darwin* (3 vols., London, 1887).
- DAVIDSON, D. S.: "Knotless Netting in America and Oceania" (*American Anthropologist*, Vol. 37, 1935), pp. 117-134.
- DAWSON, J.: *Australian Aborigines* (Melbourne, 1881).
- DENSMORE, F.: "An Explanation of a Trick Performed by Indian Jugglers" (*American Anthropologist*, Vol. 34, 1932), pp. 310-314.
- DERRINGER, D.: *The Alphabet* (New York, 1948).
- DE SCHLIPPE, P.: *Shifting Cultivation in Africa: The Zande System of Agriculture* (London, 1956).
- DOBZHANSKY, T.: *Genetics and the Origin of Species* (3d ed., New York, 1951).
- DOLLARD, J.: *Criteria for the Life History, with Analyses of Six Notable Documents* (New Haven, 1935).
- DOMENECH, E.: *Seven Years' Residence in the Great Deserts of North America* (2 vols., London, 1860).
- DORSEY, G. A.: "The Cheyenne: II, The Sun Dance" (*Field Columbian Museum, Publication 103, Anthropological Series*, Vol. 9, No. 2, 1905).
- , and J. R. MURIE: "Notes on Skidi Pawnee Society" (*Field Museum of Natural History, Anthropological Series*, Vol. 27, 1940).
- DRUCKER, P.: "Rank, Wealth, and Kinship in Northwest Coast Society" (*American Anthropologist*, Vol. 41, 1939), pp. 55-65; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 214-221.

- DuBois, C.: "The Alorese," in A. Kardiner (ed.), *The Psychological Frontiers of Society* (New York, 1945), pp. 101-145.
- : *The People of Alor* (Minneapolis, 1944).
- DUMAREST, N.: *Notes on Cochiti, New Mexico* (American Anthropological Association, Memoirs, Vol. 6, No. 3, 1919).
- DUNN, L. C., and T. DOBZHANSKY: *Heredity, Race, and Society* (rev. ed., New York, 1951).
- DURKHEIM, E.: *Elementary Forms of the Religious Life* (London, 1914).
- EGGAN, F. (ed.): *Social Organization of North American Indians* (rev. ed., Chicago, 1955).
- : *Social Organization of the Western Pueblos* (Chicago, 1950).
- ELWIN, V.: *The Tribal Art of Middle India* (Oxford, 1951).
- EMBREE, J. F.: *The Japanese Nation: A Social Survey* (New York, 1945).
- ENGELS, F.: *The Origin of the Family, Property, and the State in the Light of the Researches of Lewis Henry Morgan* (London, 1885).
- ERASMUS, C. J.: "Patolli, Pachisi, and the Limitations of Possibilities" (*Southwestern Journal of Anthropology*, Vol. 6, 1950), pp. 369-381.
- EVANS, B.: *The Natural History of Nonsense* (New York, 1946).
- EVANS-PRITCHARD, E. E.: *Kinship and Marriage Among the Nuer* (Oxford, 1951).
- : "Nuer Bridewealth" (*Africa*, Vol. 16, 1946), pp. 1ff.
- : *Social Anthropology* (Oxford, 1951).
- : *The Nuer: A Description of the Modes of Livelihood and Political Institutions of a Nilotic People* (Oxford, 1940).
- : "The Nuer of the Southern Sudan," in E. E. Evans-Pritchard and M. Fortes (eds.), *African Political Systems* (Oxford, 1941).
- : *Witchcraft, Oracles and Magic Among the Azande* (Oxford, 1937).
- FALLERS, L. A.: *Bantu Bureaucracy: A Study of Integration and Conflict in the Political Institutions of an East African People* (London, 1956).
- FENTON, W. N.: "Locality as a Basic Factor in the Development of Iroquois Social Structure," in *Symposium on Local Diversity in Iroquois Culture* (Bureau of American Ethnology, Bulletin 149, 1951).
- FIRTH, R.: *Primitive Polynesian Economy* (London, 1939).
- FORD, C. S.: *A Comparative Study of Human Reproduction* (Yale University Publications in Anthropology, No. 32, 1945).
- : "The Role of a Fijian Chief" (*American Sociological Review*, Vol. 3, 1938), pp. 542-550; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 226-233.
- FORDE, C. D.: *Habitat, Economy, and Society: A Geographical Introduction to Ethnology* (2d ed., New York, 1937).
- : "Kinship in Umor—Double Unilateral Organization in a Semi-Bantu Society" (*American Anthropologist*, Vol. 41, 1939), pp. 523-553.
- FORTES, M. (ed.): *Social Structure: Studies Presented to A. R. Radcliffe-Brown* (Oxford, 1949).
- : "Structure of Unilinear Descent Groups" (*American Anthropologist*, Vol. 55, 1953), pp. 17-34.
- : *The Dynamics of Clanship Among the Tallensi* (Oxford, 1945).
- : *The Web of Kinship Among the Tallensi* (Cambridge, 1949).
- FORTUNE, R. F.: *Manus Religion* (Proceedings of the American Philosophical Society, 1935).
- : *Sorcerers of Dobu: The Social Anthropology of the Dobu Islanders of the Western Pacific* (New York, 1932).

628 Bibliography

- FRANK, J.: "Lawlessness" (*Encyclopedia of the Social Sciences*, Vol. 9, 1933), pp. 277-279.
- FRANKLIN, B.: *The Interests of Great Britain Considered* (Boston, 1760).
- FRAZER, J. G.: *The Golden Bough: A Study in Magic and Religion* (1 vol., abridged ed., New York, 1941).
- : *Totemism and Exogamy* (4 vols., London, 1910).
- FRAZIER, E. F.: *The Negro Family in the United States* (Chicago, 1939).
- FREUCHEN, P.: *Arctic Adventure: My Life in the Frozen North* (New York, 1935).
- FREUD, S.: *Totem and Tabu* (reprinted in *The Basic Writings of Sigmund Freud*, New York, 1938).
- GARFIELD, V. E.: "Tsimshian Clan and Society" (*University of Washington Publications in Anthropology*, Vol. 7, No. 3, 1939).
- GARRETT, H. E.: "Negro-White Differences in Mental Ability in the United States" (*The Scientific Monthly*, Vol. 65, 1947), pp. 329-333.
- GARTH, T. E.: *Race Psychology: A Study of Racial Mental Differences* (New York, 1931).
- GAUCH, H.: *New Foundations for Research into Social Race Problems* (Berlin, 1933).
- GAYTON, A. H.: "Yokuts-Mono Chiefs and Shamans" (*University of California Publications in American Archaeology and Ethnology*, Vol. 24, 1930).
- GENNEP, A. VAN: *Les Rites de Passage* (Paris, 1909).
- GIFFORD, E. W.: *Tongan Society* (Bernice P. Bishop Museum, Bulletin 61, 1929).
- GILLIN, J. L., and J. P. GILLIN: *An Introduction to Sociology* (New York, 1942).
- GILLIN, J. P.: "The Barama River Caribs of British Guiana" (*Papers of the Peabody Museum of American Archaeology and Ethnology*, Harvard University, Vol. 14, 1936).
- : "Custom and the Range of Human Response" (*Character and Personality*, Vol. 13, 1944), pp. 101-134; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 87-99.
- GLADWIN, T., and S. B. SARASON: *Truk: Man in Paradise* (Viking Fund Publications in Anthropology, No. 23, 1953).
- GLUCKMAN, M.: "How the Bemba Make Their Living: An Appreciation of Richard's 'Land, Labour, and Diet in Northern Rhodesia'" (*Rhodes-Livingstone Institute Journal*, June, 1945), pp. 55-67; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 130-140.
- : *The Judicial Process Among the Barotse of Northern Rhodesia* (Manchester and Glencoe, 1954 and 1955).
- GOLDENWEISER, A.: *Anthropology* (New York, 1937).
- GOLDFRANK, E. S.: "Socialization, Personality, and the Structure of Pueblo Society (with Particular Reference to Hopi and Zuni)" (*American Anthropologist*, Vol. 47, 1945), pp. 516-539.
- GOODE, W. J.: *Religion Among the Primitives* (Glencoe, 1951).
- GOODWIN, G.: *The Social Organization of the Western Apache* (Chicago, 1942).
- GORER, G.: *The American People: A Study in National Character* (New York, 1947).
- GOUGH, E. K.: "Changing Kinship Usages in the Setting of Political and Economic Change Among the Nyars of Malabar" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 82, 1952), pp. 71-87.
- GREENBERG, J. H.: "Historical Linguistics and Unwritten Languages," in A. L. Kroeber (ed.), *Anthropology Today* (New York, 1953), pp. 265-286.
- GREENMAN, E. F.: "Material Culture and the Organism" (*American Anthropologist*, Vol. 47, 1945), pp. 211-231.
- GRIFFIN, N. M.: *The Roles of Men and Women in Eskimo Culture* (Chicago, 1930).

- GRINNELL, G. B.: *The Cheyenne Indians: Their History and Ways of Life* (2 vols., New Haven, 1928).
- : *The Fighting Cheyennes* (New York, 1915).
- GUNTHER, J.: *Inside U.S.A.* (New York, 1947).
- HAAR, B. TER: *Adat Law in Indonesia* (trans. from the Dutch and edited with an introduction by E. A. Hoebel and A. A. Schiller, New York, 1948).
- HADDON, A. C.: *Evolution in Art* (London, 1895).
- HAINES, F.: "The Northward Spread of Horses Among the Plains Indians" (*American Anthropologist*, Vol. 40, 1938), pp. 429-437.
- : "Where Did the Plains Indians Get Their Horses?" (*American Anthropologist*, Vol. 40, 1938), pp. 112-117.
- HALLOWELL, A. I.: "Culture and Mental Disorders" (*Journal of Abnormal and Social Psychology*, Vol. 29, 1934), pp. 1-9.
- : "Psychological Leads for Ethnological Field Workers," in D. Haring (ed.), *Personal Character and Cultural Milieu* (Syracuse, 1949), pp. 292-348.
- : "The Nature and Function of Property as a Social Institution" (*Journal of Political and Legal Sociology*, Vol. 1, 1943), pp. 115-138.
- HAMBLY, W. D.: "Source Book for African Anthropology" (*Field Museum of Natural History, Anthropological Series*, Vol. 26, Part 2, 1937).
- : *The History of Tattooing and Its Significance* (London, 1925).
- HAMILTON, W. H., and I. TILL: "Property" (*Encyclopedia of the Social Sciences*, Vol. 12, 1934), pp. 528-538.
- HARRASSER, A.: *Die Rechtsverletzung bei den australischer Eingeborenen* (Beilageheft zur vergleichende Rechtswissenschaft, Vol. 50, 1936).
- HART, C. W. M.: "A Reconsideration of Natchez Social Structure" (*American Anthropologist*, Vol. 45, 1943), pp. 374-386.
- : "Contrasts Between Prepubertal and Postpubertal Education," in G. D. Spindler (ed.), *Education and Anthropology* (Stanford, 1956), Section V.
- HAWLEY, F. M.: "Pueblo Social Organization as a Lead to Pueblo History" (*American Anthropologist*, Vol. 39, 1937), pp. 504-522.
- HAY, C., et al. (eds.): *The Maya and Their Neighbors* (New York, 1940).
- HEIZER, R. F.: "Long-range Dating in Archeology," in A. L. Kroeber (ed.), *Anthropology Today* (New York, 1953), pp. 3-42.
- HERSKOVITS, M. J.: *Acculturation: The Study of Culture Contacts* (New York, 1938).
- : "African Gods and Catholic Saints in New World Negro Belief" (*American Anthropologist*, Vol. 39, 1937), pp. 635-643.
- : *Backgrounds of African Art* (Denver, 1945).
- : "A Note on 'Woman Marriage' in Dahomey" (*Africa*, Vol. 10, 1937), pp. 335-341.
- : "A Preliminary Consideration of Culture Areas of Africa" (*American Anthropologist*, Vol. 26, 1924), pp. 50-63.
- : *Dahomey: An Ancient West African Kingdom* (2 vols., New York, 1938).
- , and F. S. HERSKOVITS: *An Outline of Dahomean Religious Belief* (American Anthropological Association, Memoir 41, 1933).
- HIBBEN, F. C.: "Corn" (*The Atlantic*, Vol. 175, 1945), p. 121.
- HILL, W. W.: *The Agricultural and Hunting Methods of the Navaho Indians* (Yale University Publications in Anthropology, No. 18, 1938).
- HOBHOUSE, L. H., G. C. WHEELER, and M. GINSBERG: *The Material Culture and Social Institutions of the Simpler Peoples* (London, 1930).
- HOCART, A. M.: "Kinship Systems," in *The Life-giving Myth, and Other Essays* (n.d.); reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 189-193.

630 Bibliography

- HOEBEL, E. A.: "Anent Blood Relationship" (*Science*, Vol. 103, 1946), pp. 600-602.
- : "Comanche and H3kandika Shoshone Relationship Systems" (*American Anthropologist*, Vol. 41, 1939), pp. 440-457.
- : "Eskimo Infanticide and Polyandry" (*The Scientific Monthly*, Vol. 64, 1947), p. 535.
- : "Fundamental Legal Concepts as Applied in the Study of Primitive Law" (*Yale Law Journal*, Vol. 51, 1942), pp. 951-963.
- : "Law and Anthropology" (*Virginia Law Review*, Vol. 32, 1946), pp. 836-854.
- : "Law-ways of the Primitive Eskimos" (*Journal of Criminal Law and Criminology*, Vol. 31, 1941), pp. 663-683.
- : "The Asiatic Origin of a Myth of the Northwest Coast" (*Journal of American Folklore*, Vol. 54, 1941), pp. 1-12.
- : "The Comanche Sun Dance and Messianic Outbreak of 1873" (*American Anthropologist*, Vol. 43, 1941), pp. 301-303.
- : *The Political Organization and Law-ways of the Comanche Indians* (American Anthropological Association, Memoir 54: Contributions from the Laboratory of Anthropology, 4, 1940).
- : *The Law of Primitive Man: A Study in Comparative Legal Dynamics* (Cambridge, 1954).
- : "The Sun Dance of the H3kandika Shoshone" (*American Anthropologist*, Vol. 37, 1935), pp. 570-581.
- : "Underground Kiva Passages" (*American Antiquity*, Vol. 19, 1953), p. 76.
- , J. D. JENNINGS, and E. R. SMITH: *Readings in Anthropology* (New York, 1955).
- HOGGIN, H. I.: *Law and Order in Polynesia: A Study of Primitive Legal Institutions* (New York, 1934).
- HOLLIS, A. C.: *The Nandi* (Oxford, 1909).
- HOLMES, O. W., JR.: "Law in Science and Science in Law" (*Harvard Law Review*, Vol. 12, 1899), pp. 443-463.
- : *McDonald v. Maybee* (*Supreme Court Reporter*, Vol. 37, 1917), p. 343.
- : *The Common Law* (Boston, 1881).
- : "The Path of the Law" (*Harvard Law Review*, Vol. 10, 1897).
- HOLMES-POLLOCK LETTERS: *The Correspondence of Mr. Justice Holmes and Sir Frederick Pollock 1874-1932* (2 vols., Cambridge, 1942).
- HOLMES, W. H.: *Ancient Art of the Province of Chiriqui* (Bureau of American Ethnology, Annual Report 6, 1888).
- HOOTON, E. A.: *Man's Poor Relations* (New York, 1942).
- : "The Wages of Biological Sin" (*The Atlantic*, Vol. 164, 1939), pp. 435-445.
- : *Up from the Ape* (rev. ed., New York, 1947).
- : *The American Criminal* (Cambridge, 1938).
- HOWELL, F. C.: "Pleistocene Glacial Ecology and the Evolution of 'Classical Neanderthal' Man" (*Southwestern Journal of Anthropology*, Vol. 8, 1952), pp. 377-460.
- : "The Place of Neanderthal Man in Human Evolution" (*American Journal of Physical Anthropology*, Vol. 9, 1951), pp. 379ff.
- HOWELL, P. P.: *A Manual of Nuer Law* (Oxford, 1954).
- HOWELLS, W. W.: *Back of History* (Garden City, 1954).
- : "Fossil Man and the Origin of Races" (*American Anthropologist*, Vol. 44, 1942), pp. 182-193.
- : *Mankind So Far* (Garden City, 1944).
- : *The Heathens* (Garden City, 1948).
- HOWITT, A. W.: *The Native Tribes of South-east Australia* (New York, 1904).

- HRDLÍČKA, A.: "The Neandertal Phase of Man" (*Smithsonian Institution, Annual Report*, 1928), pp. 593-623.
- HUTTON, J. H.: *Caste in India: Its Nature, Function, and Origin* (London, 1946).
- HUXLEY, J. S.: *Evolution in Action* (London, 1953).
- HUXLEY, T. H.: *Evidence as to Man's Place in Nature* (London, 1863).
- INVERARITY, R. B.: *Art of the Northwest Coast Indians* (Berkeley, 1950).
- IZIKOWITZ, K. G.: *Lamet, Hill Peasants in French Indochina* (Göteborg, 1951).
- JAMES, P.: *An Outline of Geography* (Boston, 1935).
- JEFFREY, M. D. W.: "Lobola is Child-price" (*African Studies*, Vol. 10, 1951), pp. 1-40.
- JENNESS, D.: *The Indians of Canada* (National Museum of Canada, Bulletin 68, Anthropological Series, No. 15, 2d ed., 1934).
- JHERING, R. VON: *Law as Means to an End* (trans. from the German, New York, 1924).
- JOCHELSON, W.: "Past and Present Subterranean Dwellings of the Tribes of North Eastern Asia and North Western America" (*Proceedings of the 15th International Congress of Americanists, Quebec*, 1907).
- JONG, J. P. B. DE: "Levi-Strauss's Theory on Kinship and Marriage" (*Mededelingen van het Rijksmuseum voor Volkenkunde, Leiden*, No. 10, 1952).
- JUNOD, A. H.: *The Life of a South African Tribe* (2 vols., London, 1913).
- KARDINER, A.: *The Individual and His Society* (New York, 1939).
- : *The Psychological Frontiers of Society* (New York, 1945).
- KESING, F. M.: "Some Notes on Bontoc Social Organization" (*American Anthropologist*, Vol. 51, 1949), pp. 578-600; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 173-189.
- KEITH, A.: "A Resurvey of the Anatomical Features of the Piltdown Skull with Some Observations on the Recently Discovered Swanscombe Skull" (*Journal of Anatomy*, Vol. 63, 1938-1939), pp. 155-185, 234-254.
- : *New Discoveries Relating to the Antiquity of Man* (New York, n.d.).
- : *The Antiquity of Man* (2 vols., Philadelphia, 1925).
- KENNEDY, R.: "Bark Cloth in Indonesia" (*Journal of the Polynesian Society*, No. 172, 1934).
- : *Islands and Peoples of the Indies* (Smithsonian Institution War Background Studies, No. 14, 1943).
- KLINEBERG, O. H.: "A Science of National Character" (*Journal of Social Psychology*, S.P.S.S.I. Bulletin 19, 1944), pp. 147-162.
- : "Mental Tests" (*Encyclopedia of the Social Sciences*, Vol. 10, 1933), pp. 323-328.
- : *Race Differences* (New York, 1935).
- KLUCKHOHN, C.: *Mirror for Man: The Relation of Anthropology to Modern Life* (New York, 1949).
- : "Philosophy of the Navaho Indians," in F. S. C. Northrop (ed.), *Ideological Differences and World Order* (New Haven, 1949), Chap. 17.
- : "The Place of Theory in Anthropological Science" (*The Philosophy of Science*, Vol. 6, 1939).
- , and W. H. KELLEY: "The Concept of Culture," in R. Linton (ed.), *The Science of Man in the World Crisis* (New York, 1947), pp. 78-102.
- , and O. H. MOWRER: "'Culture and Personality': A Conceptual Scheme" (*American Anthropologist*, Vol. 46, 1944), pp. 1-29.
- KÖHLER, W.: *The Mentality of Apes* (New York, 1925).
- KORZYBSKI, A.: *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics* (2d ed., New York, 1941).

632 Bibliography

- KRIEGER, H. W.: "Design Areas in Oceania" (*Proceedings of the United States National Museum*, Vol. 79), pp. 1-53.
- KROEBER, A. L. (ed.): *Anthropology Today: An Encyclopedic Inventory* (Chicago, 1953).
- : "Art," in J. H. Steward (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 5, pp. 411-492.
- : "Caste" (*Encyclopedia of the Social Sciences*, Vol. 3, 1930), pp. 254-256.
- : "Classificatory Systems of Relationship" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 39, 1909), pp. 77-84.
- : "Cultural and Natural Areas of Native North America" (*University of California Publications in American Archaeology and Ethnology*, Vol. 39, 1939).
- : "Culture Element Distributions: XV, Salt, Dogs, Tobacco" (*Anthropological Records*, Vol. 6, No. 1, 1941), pp. 1-20.
- : "Decorative Symbolism of the Arapaho" (*American Anthropologist*, Vol. 3, 1901), pp. 308ff.
- : "Stepdaughter Marriage" (*American Anthropologist*, Vol. 42, 1940), pp. 562-570.
- : "Stimulus Diffusion" (*American Anthropologist*, Vol. 42, 1940), pp. 1-20.
- : "The Superorganic" (*American Anthropologist*, Vol. 19, 1917), pp. 163-213.
- : "Yurok Law" (*Proceedings of the 22d International Congress of Americanists*, 1922), pp. 511ff.
- , and C. KLUCKHOHN: "Culture: A Critical Review" (*Papers of the Peabody Museum of American Archaeology and Ethnology*, Harvard University, Vol. 47, 1952).
- KUPER, H.: *An African Aristocracy: Rank among the Swazi* (Oxford, 1947).
- LABARRE, W.: *The Human Animal* (Chicago, 1954).
- : "Potato Taxonomy among the Aymara Indians of Bolivia" (*Acta Americana*, Vol. 5, 1947), pp. 83-102.
- : *The Peyote Cult* (Yale University Publications in Anthropology, No. 19, 1938).
- LA FARGE, O.: *The Changing Indian* (Norman, 1942).
- LA FITAU, J. F.: *Moeurs des sauvages américains comparées aux mœurs des premiers temps* (Paris, 1724).
- LANDES, R.: "The Ojibway of Canada," in M. Mead (ed.), *Cooperation and Competition among Primitive Peoples* (New York, 1937), pp. 87-126.
- LANG, A.: *Myth, Ritual, and Religion* (London, 1887).
- : *Social Origins* (London, 1903).
- : *The Making of Religion* (London, 1898).
- LANTIS, M.: "The Alaskan Whale Cult and Its Affinities" (*American Anthropologist*, Vol. 40, 1938), pp. 438-464.
- LEAKEY, L. S. B.: *Adam's Ancestors: An Up-to-date Outline of What Is Known about the Origin of Man* (New York, 1935).
- : *The Stone Age Races of Kenya* (London, 1935).
- LEE, D. D.: "Being and Value in a Primitive Culture" (*The Journal of Philosophy*, Vol. 46, 1939), pp. 401-415; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 283-295.
- LEE, O.: "Social Values and the Philosophy of Law" (*Virginia Law Review*, Vol. 32, 1946), pp. 802-817.
- LESSA, W. A.: *An Appraisal of Constitutional Typologies* (American Anthropological Association, Memoir 62, 1945).
- LESSER, A.: "Levirate and Fraternal Polyandry among the Pawnees" (*Man*, Vol. 30, No. 77, 1930), pp. 98-101.
- LEVI-STRAUSS, C.: *Les Structures Élémentaires de la Parenté* (Paris, 1948).

- LEWIN, J.: *Studies in African Native Law* (Cape Town and Philadelphia, 1947).
- LEWIS, M., and W. CLARK: *History of the Expedition of Captains Lewis and Clark 1804-05-06* (Hosmer ed., 2 vols., Chicago, 1902).
- LEWIS, O.: *The Effects of White Contact upon Blackfoot Culture, with Special Reference to the Fur Trade* (American Ethnological Society, Monograph 6, 1942).
- LINTON, R. (ed.): *Acculturation in Seven American Indian Tribes* (New York, 1940).
- : "Culture Areas in Madagascar" (*American Anthropologist*, Vol. 30, 1928), pp. 363-390.
- : *The Cultural Background of Personality* (New York, 1945).
- : *The Marquesas*, in A. Kardiner, *The Individual and His Society* (New York, 1937).
- (ed.): *The Science of Man in the World Crisis* (New York, 1945).
- : *The Study of Man* (New York, 1936).
- : "The Tanala," in A. Kardiner, *The Individual and His Society* (New York, 1937).
- : "The Tanala, A Hill Tribe of Madagascar" (*Field Museum of Natural History, Anthropological Series*, Vol. 22, 1933).
- : *The Tree of Culture* (New York, 1955).
- , and P. S. WINGERT: *Arts of the South Seas* (New York, 1946).
- LLEWELLYN, K. N., and E. A. HOEBEL: *The Cheyenne Way: Conflict and Case Law in Primitive Jurisprudence* (Norman, 1941).
- LOEB, E. M.: "Javanese Word Formation, High and Low" (*Journal of the American Oriental Society*, Vol. 64, 1944), pp. 113-126.
- , and J. O. M. BROEK: "Social Organization and the Long House in Southeast Asia" (*American Anthropologist*, Vol. 49, 1947), pp. 414-425.
- , and G. TOFFELMIER: "Kin Marriage and Exogamy" (*The Journal of General Psychology*, Vol. 20, 1939), pp. 181-228.
- LOWIE, R. H.: *An Introduction to Cultural Anthropology* (rev. ed., New York, 1940).
- : "Evolution in Cultural Anthropology: A Reply to Leslie White" (*American Anthropologist*, Vol. 48, 1946), pp. 229-230.
- : "Incorporeal Property in Primitive Society" (*Yale Law Journal*, Vol. 38, 1928), pp. 551-563.
- : "Kinship" (*Encyclopedia of the Social Sciences*, Vol. 3, 1931), pp. 568-572.
- : "Lewis Henry Morgan in Historical Perspective," in *Essays in Anthropology in Honor of Alfred Louis Kroeber* (Berkeley, 1936), pp. 169-181.
- : "Notes on Shoshonean Ethnography" (*American Museum of Natural History, Anthropological Papers*, Vol. 20, Part 3, 1924).
- : "Plains Indian Age Societies: Historical Summary" (*American Museum of Natural History, Anthropological Papers*, Vol. 11, 1916), pp. 877-984.
- : *Primitive Religion* (New York, 1924).
- : *Primitive Society* (New York, 1920).
- : "Property Rights and Coercive Powers of the Plains Indian Military Societies" (*Journal of Legal and Political Sociology*, Vol. 1, 1943), pp. 59-71.
- : "Societies of the Crow, Hidatsa, and Mandan Indians" (*American Museum of Natural History, Anthropological Papers*, Vol. 11, 1913).
- : "Some Moot Questions of Social Organization" (*American Anthropologist*, Vol. 36, 1934), pp. 321-330.
- : *The Crow Indians* (New York, 1935).
- : "The Northern Shoshone" (*American Museum of Natural History, Anthropological Papers*, Vol. 11, Part 2, 1909).
- : *The Origin of the State* (New York, 1927).
- MACCURDY, G. G.: *Human Origins* (2 vols., New York, 1926).

634 Bibliography

- MACIVER, R. M.: "Government and Property" (*Journal of Political and Legal Sociology*, Vol. 4, 1946), pp. 5-18.
- : *Society: Its Structure and Changes* (New York, 1931).
- : *The Web of Government* (New York, 1947).
- McLENNAN, J. F.: *Primitive Marriage* (Edinburgh, 1865).
- : *The Patriarchal Theory* (London, 1885).
- MAINE, H. S.: *Ancient Law: Its Connection with the Early History of Society, and Its Relation to Modern Ideas* (3d American ed., New York, 1879).
- MALINOWSKI, B.: *Argonauts of the Western Pacific: An Account of Native Enterprise and Adventure in the Archipelagos of Melanesian New Guinea* (London, 1922).
- : *Coral Gardens and Their Magic* (2 vols., New York, 1938).
- : *Crime and Custom in Savage Society* (New York, 1926).
- : "Culture" (*Encyclopedia of the Social Sciences*, Vol. 4, 1931), pp. 621-646.
- : *Magic, Science and Religion and Other Essays* (Glencoe, 1948).
- : Preface in R. Firth, *We, The Tikopia* (London, 1936).
- : *Sex and Repression in Savage Society* (New York, 1927).
- : *The Father in Primitive Psychology* (New York, 1927).
- MALTHUS, T. R.: *An Essay on the Principle of Population: or, A View of Its Past and Present Effects on Human Happiness; with An Inquiry into Our Prospects Respecting the Future Removal or Mitigation of the Evils Which It Occasions* (London, 1798).
- MANGELSDORF, P. C., and R. G. REEVES: "The Origin of Maize: Present Status of the Problem" (*American Anthropologist*, Vol. 47, 1945), pp. 235-243.
- MARRETT, R. R.: *The Threshold of Religion* (2d ed., London, 1914).
- MARX, F. M.: "Administrative Ethics and the Rule of Law" (mss.).
- MASON, O. T.: *Aboriginal American Basketry* (United States National Museum, Annual Report, 1904), pp. 171-548.
- MASSERMAN, S. J. H.: *Principles of Dynamic Psychiatry: Including an Integrative Approach to Abnormal and Clinical Psychology* (Philadelphia, 1946).
- MAULDIN, B.: *Up Front* (New York, 1945).
- MAUSS, M.: *The Gift: Forms and Functions of Exchange in Archaic Societies* (trans. by I. Cunnison, London, 1954).
- MEAD, M.: *And Keep Your Powder Dry* (New York, 1942).
- : *Coming of Age in Samoa: A Psychological Study of Primitive Youth for Western Civilization* (New York, 1928).
- (ed.): *Cooperation and Competition among Primitive Peoples* (New York, 1937).
- : *Growing Up in New Guinea: A Comparative Study of Primitive Education* (New York, 1930).
- : "On the Implications for Anthropology of the Gesell-Ilg Approach to Maturation" (*American Anthropologist*, Vol. 49, 1947), pp. 69-77.
- : *Male and Female: A Study of the Sexes in the Changing World* (New York, 1949).
- : "National Character," in A. L. Kroeber (ed.), *Anthropology Today* (Chicago, 1953), pp. 642-667.
- : *Sex and Temperament in Three Primitive Societies* (New York, 1935).
- : "Some Theoretical Considerations on the Problem of Mother-Child Separation" (*American Journal of Orthopsychiatry*, Vol. 24, 1954), pp. 471-483.
- MEEK, C. K.: *The Northern Tribes of Nigeria* (2 vols., Oxford, 1925).
- MENNINGER, W. C.: "Psychiatry Today" (*The Atlantic*, Vol. 181, 1948), pp. 65ff.

- MÉTRAUX, A.: "The Botocudo," in J. H. Steward (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 1, pp. 531-540.
- : "The Tupinamba," in J. H. Steward (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 3, pp. 95-133.
- : "Warfare, Cannibalism, and Human Trophies," in J. H. Steward (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 5, pp. 383-409.
- MILL, J. S.: *Principles of Political Economy* (2 vols., New York, 1899).
- MILLER, G. S.: "The Jaw of Piltdown Man" (*Smithsonian Miscellaneous Collections*, Vol. 65, 1915), pp. 1-31.
- MILLIKAN, R. A.: "Science and the World Tomorrow" (*Scientific Monthly*, Vol. 49, 1939), pp. 212-240.
- MIROV, N. T.: "Notes on the Domestication of the Reindeer" (*American Anthropologist*, Vol. 47, 1945), pp. 393-408.
- MISHKIN, B.: *Rank and Warfare among the Plains Indians* (American Ethnological Society, Monograph 3, 1940).
- MOMBERT, P.: "Class" (*Encyclopedia of the Social Sciences*, Vol. 3, 1930), pp. 531-536.
- MONTAIGNE, M., DE: *Selected Essays* (trans. by D. M. Frame, New York, 1943).
- MOONEY, J.: *The Ghost Dance Religion and the Sioux Outbreak of 1890* (Bureau of American Ethnology, Annual Report 14, 1896).
- MORANT, G. M.: "The Form of the Swanscombe Skull" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 68, 1938), pp. 67-97.
- MORGAN, J. DE: *Feudalism in Persia; Its Origin, Development and Present Condition* (Washington, 1914).
- MORGAN, L. H.: *Ancient Society, or Researches in the Lines of Human Progress from Savagery, through Barbarism to Civilization* (New York, 1877).
- : "Houses and House Life of the American Aborigines" (*Contributions to American Ethnology*, Vol. 4, 1881).
- MORLEY, S. G.: *The Ancient Maya* (Stanford University, 1946).
- MOVIUS, H. L.: "Early Man and Pleistocene Stratigraphy in Southern and Eastern Asia" (*Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University*, Vol. 19, 1944).
- : "Old World Prehistory: Paleolithic," in A. L. Kroeber (ed.), *Anthropology Today* (Chicago, 1953), pp. 163-192.
- MURDOCK, G. P.: "Bifurcate Merging: A Test of Five Theories" (*American Anthropologist*, Vol. 49, 1947), pp. 56-68.
- : "Comparative Data on the Division of Labor by Sex" (*Social Forces*, Vol. 15, 1937), pp. 551-553.
- : "Double Descent" (*American Anthropologist*, Vol. 42, 1940), pp. 555-561.
- : "Family Stability in Non-European Cultures" (*Annals of the American Academy of Political and Social Sciences*, Vol. 272, 1950), pp. 195-201.
- : *Our Primitive Contemporaries* (New York, 1934).
- : *Social Structure* (New York, 1949).
- : "The Science of Culture" (*American Anthropologist*, Vol. 34, 1932), pp. 200-215.
- MYRDAL, G. S.: *An American Dilemma: The Negro Problem and Modern Democracy* (2 vols., New York, 1944).
- NADEL, S. F.: "The Kede; A Riverian State in Northern Nigeria," in E. E. Evans-Pritchard and M. Fortes (eds.), *African Political Systems* (Oxford, 1940), pp. 166-195.

636 Bibliography

- NEEDHAM, J.: "Evolution" (*Encyclopedia of the Social Sciences*, Vol. 5, 1931), pp. 649-656.
- NELSON, E. W.: *The Eskimos about Bering Straits* (Bureau of American Ethnology, Annual Report 18, 1899).
- NELSON, N. C.: "Prehistoric Archaeology," in F. Boas (ed.), *General Anthropology* (Boston, 1938).
- NEWMAN, H. H.: "The Nature and Origin of Life," in *The Nature of the World and of Man* (rev. ed., Chicago, 1933), pp. 166-176.
- NIBLACK, A. P.: *The Coast Indians of Southern Alaska and Northern British Columbia* (Board of Regents of the Smithsonian Institution, Annual Report, 1890).
- NISSSEN, H. W.: *A Field Study of the Chimpanzee* (Comparative Psychology Monographs, Vol. 8, No. 1, Serial No. 36, 1931).
- OAKLEY, K. P.: *Man The Tool-maker* (2d ed., London, 1950).
- : "Swanscombe Man" (*Proceedings of the Geologists' Association*, Vol. 63, 1952), pp. 271-300; reprinted in the *Yearbook of Physical Anthropology*, 1953 (New York, 1954), pp. 40-70.
- , and H. M. MUIR-WOOD: *The Succession of Life Through Geologic Time* (2d ed., London, 1952).
- OVERG, K.: "The Kingdom of Ankole in Uganda," in E. E. Evans-Pritchard and M. Fortes (eds.), *African Political Systems* (Oxford, 1940), pp. 121-162.
- OLEARIUS: *The Description of the Journey in Muscovia* (Moscow, 1906).
- OLIVER, D. L.: *A Solomon Island Society: Kinship and Leadership Among the Siuai of Bougainville* (Cambridge, 1953).
- O'NEALE, L. M.: "Weaving," in J. H. Steward (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 5, pp. 97-138.
- OPLER, M. E.: *An Apache Life-way: The Economic, Social, and Religious Institutions of the Chiricahua* (Chicago, 1942).
- : "On the Method of Writing Anthropological Monographs" (*American Anthropologist*, Vol. 45, 1943), pp. 329-332.
- : "Themes as Dynamic Forces in Culture" (*The American Journal of Sociology*, Vol. 51, 1945), pp. 198-206.
- OPLER, M. K.: *Culture, Psychiatry and Human Values: The Methods and Values of a Social Psychiatry* (Springfield, 1956).
- : "The Integration of the Sun Dance in Ute Religion" (*American Anthropologist*, Vol. 43, 1941), pp. 550-572.
- OPPENHEIMER, F.: *The State* (trans. from the German by Gitterman, New York, 1922).
- PARK, W. Z.: "Paviotso Polyandry" (*American Anthropologist*, Vol. 39, 1937), pp. 366-368.
- : *Shamanism in Western North America: A Study in Cultural Relationships* (Evanston and Chicago, 1938).
- PARSONS, E. C.: *American Indian Life* (New York, 1923).
- : *Pueblo Indian Religion* (2 vols., Chicago, 1937).
- PATAL, R.: "Cousin-Right in Middle Eastern Marriage" (*Southwestern Journal of Anthropology*, Vol. 11, 1955), pp. 371-390.
- PENNIMAN, T. K.: *One Hundred Years of Anthropology* (Cambridge, 1936).
- PETTITT, G. A.: "Primitive Education in North America" (*University of California Publications in American Archaeology and Ethnology*, Vol. 43, No. 1, 1946).
- PORTEUS, S. D.: *The Psychology of a Primitive People: A Study of the Australian Aborigine* (New York, 1931).
- POUND, R.: "A Theory of Legal Interests" (*American Sociological Society, Publications*, Vol. 16, 1920).

- POWDERMAKER, H.: *Life in Lesu: The Study of a Melanesian Society in New Ireland* (London, 1933).
- PRINS, A. H. J.: *East African Age Class Systems: An Inquiry Into the Social Order of Galla, Kipsigis and Kikuyu* (Groningen and Djakarta, 1953).
- PROVINSE, J. H.: "Cooperative Ricefield Cultivation among the Siang Dyaks of Central Borneo" (*American Anthropologist*, Vol. 37, 1939), pp. 77-102.
- QUIMBY, G. I.: "Natchez Social Structure as an Instrument of Assimilation" (*American Anthropologist*, Vol. 48, 1946), pp. 134-136.
- : "The Natchezan Culture Type" (*American Antiquity*, Vol. 7, 1942), pp. 255-275.
- RADCLIFFE-BROWN, A. R.: "Patrilineal and Matrilineal Succession" (*Iowa Law Review*, Vol. 20, 1935), pp. 286-298.
- : "On the Concept of Functionalism in the Social Sciences" (*American Anthropologist*, Vol. 37, 1935), pp. 394-402.
- : *The Andaman Islanders* (Cambridge, 1922).
- , and M. FORTES (eds.): *African Systems of Kinship and Marriage* (Oxford, 1950).
- RADIN, M.: "A Restatement of Hohfeld" (*Harvard Law Review*, Vol. 51, 1938), pp. 1141ff.
- RADIN, P. (ed.): *Crashing Thunder: The Autobiography of an American Indian* (New York, 1926).
- : *Monotheism in Primitive Religion* (New York, 1927).
- : *Primitive Man as Philosopher* (New York, 1927).
- : "The Mind of Primitive Man" (*New Republic*, Vol. 98, 1939), p. 303.
- : *The Winnebago Tribe* (Bureau of American Ethnology, Annual Report 37, 1923).
- RASMUSSEN, K.: *Across Arctic America* (New York, 1927).
- RATTRAY, R. S.: *Ashanti* (Oxford, 1923).
- : *Ashanti Law and Constitution* (Oxford, 1927).
- RATZEL, F.: *Anthropogeographie* (2 vols., Stuttgart, 1882).
- RAY, V. F.: "The Sanpoil and Nespelem: Salishan Peoples of Northeastern Washington" (*University of Washington Publications in Anthropology*, Vol. 5, 1932).
- REDFIELD, R.: *The Folk Culture of Yucatán* (Chicago, 1942).
- : *The Primitive World and Its Transformations* (Ithaca, 1953).
- REICHARD, G.: "Social Life," in F. Boas (ed.), *General Anthropology* (New York, 1938).
- REIK, T.: *Ritual: A Psychoanalytic Study* (New York, 1947).
- RICHARDS, A. I.: *Land, Labour, and Diet in Northern Rhodesia* (Oxford, 1950).
- RICHARDSON, J.: *Law and Status among the Kiowa Indians* (American Ethnological Society, Monograph 1, 1940).
- RIVERS, W. H. R.: *Kinship and Social Organization* (London, 1914).
- : *The Todas* (London, 1906).
- ROSCOE, J.: "The Bahima" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 37, 1907), pp. 93-118.
- : *The Banyankole* (London, 1923).
- : "The Cow Tribe of Enkole in the Uganda Protectorate" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 37, 1907).
- : *The Northern Bantu, An Account of Some Central African Tribes of the Uganda Protectorate* (2 vols., Cambridge, 1915).
- ROSS, E. A.: *Social Psychology* (New York, 1915).
- ROWE, J. H.: "Inca Culture at the Time of the Spanish Conquest," in J. H. Steward

638 Bibliography

- (ed.), *Handbook of South American Indians* (6 vols., Washington, 1946-1950), Vol. 2, pp. 183-330.
- SALMOND, J. W.: *Jurisprudence* (7th ed., New York, 1924).
- SAUER, C.: "American Agricultural Origins: A Consideration of Nature and Culture," in *Essays in Anthropology in Honor of Alfred Louis Kroeber* (Berkeley, 1936), pp. 279-298.
- SAYCE, R. U.: *Primitive Arts and Crafts: An Introduction to the Study of Material Culture* (Cambridge, 1933).
- SCHAPERA, I.: *A Handbook of Tswana Law and Custom: Compiled for the Bechuanaland Protectorate Administration* (Oxford, 1938).
- : *Government and Politics in Tribal Societies* (London, 1956).
- : *Married Life in a South African Tribe* (London, 1950).
- SCHMIDT, W.: *The Origin and Growth of Religion* (trans. from the German by H. J. Rose, New York, 1935).
- : "The Position of Women with Regard to Property in Primitive Society" (*American Anthropologist*, Vol. 37, 1935), pp. 244-256.
- SCHNEIDER, D. M., and G. C. HOMANS: "Kinship Terminology and the American Kinship System" (*American Anthropologist*, Vol. 57, 1955), pp. 1194-1208.
- SCHOOLCRAFT, R. H. (ed.): *History of the Indian Tribes of the United States* (Philadelphia, 1860).
- SCHUCHERT, C.: "The Earth's Changing Surface and Climate during Geologic Time," in G. A. Baitsell (ed.), *The Evolution of Earth and Man* (New Haven, 1929), pp. 47-82.
- SCHURTZ, H.: *Altersklassen und Männerbunde* (Berlin, 1902).
- SEAGLE, W.: *The Quest for Law* (New York, 1941).
- SEWARD, G. H.: *Sex and the Social Order* (New York, 1946).
- SHAPIRO, H. L.: *Race Mixture* (Paris, 1953).
- SHELDON, W. H., and S. S. STEVENS: *The Varieties of Temperament, A Psychology of Constitutional Differences* (New York, 1942).
- , and W. B. TUCKER: *The Varieties of Human Physique* (New York, 1940).
- SIMMONS, L. (ed.): *Sun Chief: The Autobiography of a Hopi Indian* (New Haven, 1942).
- : *The Role of the Aged in Primitive Society* (New Haven, 1945).
- SIMPSON, G. E.: "The Vodun Service in Northern Haiti" (*American Anthropologist*, Vol. 42, 1940), pp. 236-254.
- SIMPSON, G. G.: *The Meaning of Evolution* (Oxford, 1950).
- SINGER, S., E. J. HOLMYARD, and A. R. HALL (eds.): *A History of Technology* (3 vols., Oxford, 1954).
- SKIRA, A., and G. BATAILLE: *Prehistoric Painting: Lascaux or the Birth of Art* (Switzerland, n.d.).
- SMITH, G. H.: "J. B. Trudeau's Remarks on the Indians of the Upper Missouri, 1794-95" (*American Anthropologist*, Vol. 38, 1936), pp. 565-568.
- SMITH, M. B.: "The War Complex of the Plains Indians" (*American Philosophical Society, Proceedings*, Vol. 28, 1937), pp. 425-464.
- SMYTH, H. D.: *Atomic Energy for Military Purposes: The Official Report on the Development of the Atomic Bomb under the Auspices of the United States Government, 1940-1945* (Princeton, 1946).
- SNYDERMAN, G. S.: "Behind the Tree of Peace" (*Pennsylvania Archaeologist*, Vol. 18, 1948).
- SPECK, F. H.: "The Family Hunting Band as the Basis of Algonkian Social Organization" (*American Anthropologist*, Vol. 17, 1915), pp. 289-305.
- SPENCER, H.: *The Principles of Sociology* (3 vols., London, 1887-1896).

- SPENCER, R. F.: "The Arabian Matriarchate: An Old Controversy" (*Southwestern Journal of Anthropology*, Vol. 8, 1952), pp. 478-502.
- SPIER, L.: "Plains Indian Parfleche Designs" (*University of Washington Publications in Anthropology*, Vol. 4, No. 3, 1931).
- : "The Sun Dance of the Plains Indian" (*American Museum of Natural History, Anthropological Papers*, Vol. 16, Part 7, 1921).
- : *Yuman Tribes of the Gila River* (Chicago, 1933).
- , and E. SAPIR: "Wishram Ethnography" (*University of Washington Publications in Anthropology*, Vol. 3, No. 3, 1930).
- SRINIVAS, M. N.: *Religion and Society Among the Coorgs of South India* (Oxford, 1952).
- STEGGERDA, M. G.: "Physical Measurements on Negro, Navajo, and White Girls of College Age" (*American Journal of Physical Anthropology*, Vol. 26, 1940), pp. 417-431.
- STEWART, J. H.: *Basin-Plateau Aboriginal Socio-political Groups* (Bureau of American Ethnology, Bulletin 120, 1938).
- : "Cultural Causality and Law: A Trial Formulation of the Development of Early Civilization" (*American Anthropologist*, Vol. 51, 1949), pp. 1-27; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 322-340.
- : "Ecological Aspects of Southwestern Society" (*Anthropos*, Vol. 32, 1937), pp. 82-104.
- : "Evolution and Process," in A. L. Kroeber (ed.), *Anthropology Today* (New York, 1953), pp. 313-326.
- (ed.): *Handbook of South American Indians* (6 vols., Washington, 1946-1950).
- : "Shoshone Polyandry" (*American Anthropologist*, Vol. 38, 1936), pp. 561-564.
- : "The Economic and Social Basis of Primitive Bands," in *Essays in Anthropology in Honor of Alfred Louis Kroeber* (Berkeley, 1936), pp. 331-350.
- : *Theory of Culture Change: the Methodology of Multilineal Evolution* (Urbana, 1955).
- STIRLING, M. W.: *Historical and Ethnographical Materials on the Jivaro Indians* (Bureau of American Ethnology, Bulletin 117, 1938).
- STOW, G. W.: *The Native Races of South Africa, A History of the Intrusion of the Hottentots and Bantu into the Hunting Grounds of the Bushman* (London, 1905).
- STRAUS, W. L., JR.: "The Riddle of Man's Ancestry" (*The Quarterly Review of Biology*, Vol. 24, 1949), pp. 200-223; reprinted in the *Yearbook of Physical Anthropology*, 1949 (New York, 1951).
- SUMNER, W. G.: *Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores and Morals* (Boston, 1913).
- SWANTON, J. R.: "Are Wars Inevitable?" (*Smithsonian Institution, War Background Studies*, No. 12, 1943).
- : "The Social Organization of American Tribes" (*American Anthropologist*, Vol. 7, 1905), pp. 663-673.
- TAX, S.: "Some Problems of Social Organization," in F. Eggan (ed.), *Social Anthropology of North American Tribes* (2d ed., Chicago, 1955), pp. 2-32.
- , and L. L. EISELY, I. ROUSE, and C. F. VOEGELIN: *An Appraisal of Anthropology Today* (Chicago, 1953).
- THOMAS, W. I.: *Primitive Behavior* (New York, 1937).
- THOMPSON, D. F.: "The Joking Relationship and Organized Obscenity in North Queensland" (*American Anthropologist*, Vol. 37, 1935), pp. 460-490.

640 Bibliography

- THOMPSON, J. E. S.: "A Survey of the Northern Maya Area" (*American Antiquity*, Vol. 2, 1945), pp. 2-24.
- : *The Civilization of the Mayas* (Field Museum of Natural History, Anthropology Leaflet 25, 4th ed., 1942).
- THOMPSON, L.: "The Culture History of the Lau Islands, Fiji" (*American Anthropologist*, Vol. 40, 1938), pp. 181-197.
- , and A. JOSEPH: *The Hopi Way* (Lawrence, 1944).
- THOMPSON, S.: *Tales of the North American Indians* (Cambridge, 1929).
- : *The Folktale* (New York, 1946).
- THURNWALD, R.: *Banaro Society* (American Anthropological Association, Memoir 5, No. 4, 1924).
- : *Economics in Primitive Communities* (Oxford, 1932).
- : "Review of *Sex and Temperament in Three Primitive Societies*, by M. Mead" (*American Anthropologist*, Vol. 38, 1940), pp. 663-667.
- TILNEY, F.: *The Brain from Ape to Man* (2 vols., New York, 1928).
- TITIEV, M.: "Old Oraibi: A Study of the Hopi Indians of the Third Mesa" (*Peabody Museum of American Archaeology and Ethnology, Harvard University*, Vol. 22, No. 1, 1944).
- : "The Influence of Common Residence on the Unilateral Classification of Kindred" (*American Anthropologist*, Vol. 45, 1943), pp. 511-530.
- TROWELL, M., and K. P. WACHSMAN: *Tribal Crafts in Uganda* (Oxford, 1953).
- TUMIN, M. M.: *Caste in a Peasant Society: A Case Study of the Dynamics of Caste* (Princeton, 1952).
- TURNER-HIGH, H. H.: *The Practice of Primitive War: A Study in Comparative Sociology* (The University of Montana Publications in the Social Sciences, No. 2, 1942).
- TYLOR, E. B.: "American Lot Games as Evidence of Asiatic Intercourse before the Time of Columbus" (*Internationales Archiv für Ethnographie*, Vol. 9, supplement, 1896), pp. 55-67.
- : *Anthropology: An Introduction into the Study of Man and Civilization* (London, 1881).
- : "On the Game of Patolli in Ancient America and Its Probable Asiatic Origin" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 8, 1879), pp. 116-129.
- : "On a Method of Investigating the Development of Institutions; applied to the Laws of Marriage and Descent" (*Journal of the Royal Anthropological Institute of Great Britain and Ireland*, Vol. 18, 1889), pp. 245-272.
- : *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Language, Art and Custom* (2 vols., New York, 1874).
- : *Researches into the Early History of Mankind* (2 vols., London, 1871).
- TYRELL, J. B. (ed.): *David Thompson's Narrative of His Explorations in Western America, 1784-1812* (Toronto, 1916).
- UNESCO: *African Worlds: Studies in the Cosmological Ideas and Social Values of African Peoples* (Oxford, 1954).
- : *The Race Concept* (Paris, 1952).
- VAILLANT, G. C.: *Aztecs of Mexico: Origin, Rise and Fall of the Aztec Nation* (New York, 1941).
- VALLOIS, H., "Néanderthal-Néandertal" (*L'Anthropologie*, Vol. 55, 1952), pp. 557-558.
- VAVILOV, N.: *Studies on the Origin of Cultivated Plants* (Bulletin of Applied Botany and Plant Breeding, Leningrad, 1926).
- VERCORS: *You Shall Know Them* (Boston, 1953).

- VOGT, E.: "Three Navaho Households" (*Papers of the Peabody Museum of American Archaeology and Ethnology*, Vol. 50, No. 3, 1953).
- WAITZ, F. T.: *Anthropologie der Naturvölker* (6 vols., Leipzig, 1859-1871).
- WALLACE, E., and E. A. HOEBEL: *The Comanches: Lords of the South Plains* (Norman, 1952).
- WALLIS, W. D.: *An Introduction to Cultural Anthropology* (New York, 1926).
- WARNER, W. L.: "Murngin Warfare" (*Oceania*, Vol. 1, 1940).
- , and P. S. LUND: *The Social Life of a Modern Community* (New Haven, 1941).
- WASHBURN, S. L.: "Thinking about Race" (*Science Education*, Vol. 28, 1944), pp. 65-76; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 105-112.
- WATSON, D. M. S.: "Africa and the Origin of Man" (*American Scientist*, Vol. 41, 1953), pp. 427-438.
- WEBSTER, H.: *Primitive Secret Societies: A Study in Early Politics and Religion* (New York, 1908).
- WEIDENREICH, F.: "Giant Early Man from Java and South China" (*American Museum of Natural History, Anthropological Papers*, Vol. 40, 1945), pp. 1-34.
- : "Man or Ape?" (*Natural History*, Vol. 46, 1940), pp. 35ff.
- : "Some Problems Dealing with Ancient Man" (*American Anthropologist*, Vol. 42, 1940), pp. 375-383.
- : "The Skull of *Sinanthropus pekinensis*: A Comparative Study on a Primitive Hominid Skull" (*Paleontologia Sinica*, n.s., D, No. 10, 1943), pp. 1-484.
- WEINER, J. S.: *The Piltdown Forgery* (Oxford, 1955).
- WELLS, H. G.: *The Outline of History* (New York, 1920).
- WELTFISH, G.: "Prehistoric North American Basketry Techniques and Modern Distributions" (*American Anthropologist*, Vol. 32, 1930), pp. 454-495.
- WEST, R.: *Conscience and Society: A Study of the Psychological Prerequisites of Law and Order* (New York, 1945).
- WESTERMANN, D.: *Die Kpelle, ein Negerstamm in Liberia* (Göttingen, 1921).
- WESTERMARCK, E.: *The History of Human Marriage* (3 vols., London, 1925).
- WHITE, L. A.: "A Problem in Kinship Terminology" (*American Anthropologist*, Vol. 41, 1939), pp. 569-570.
- : "'Diffusion vs. Evolution': An Anti-evolutionist Fallacy" (*American Anthropologist*, Vol. 47, 1945), pp. 339-355.
- : "Energy and the Evolution of Culture" (*American Anthropologist*, Vol. 45, 1943), pp. 354-355.
- : "The Expansion of the Scope of Science" (*Journal of the Washington Academy of Sciences*, Vol. 37, 1947), pp. 181-210.
- : "The Symbol: the Origin and Basis of Human Behavior" (*Etc.: A Review of General Semantics*, Vol. 1, 1944), pp. 229-237.
- WHITMAN, W.: *The Pueblo Indians of San Ildefonso* (New York, 1947).
- WILLEY, G. R.: "Archeological Theories and Interpretations," in A. L. Kroeber (ed.), *Anthropology Today* (New York, 1953), pp. 361-385.
- WILSON, G. R.: "The Hidatsa Earthlodge" (*American Museum of Natural History, Anthropological Papers*, Vol. 33, 1934).
- WILSON, M.: *Good Company: A Study of Nyakyusa Age-Villages* (London, 1951).
- WISSLER, C.: *The American Indian* (3d ed., New York, 1938).
- : "The Influence of the Horse in the Development of Plains Culture" (*American Anthropologist*, Vol. 16, 1914), pp. 1-25; reprinted in Hoebel, Jennings, and Smith, *Readings in Anthropology*, pp. 155-173.

642 Bibliography

- WOODRUFF, L. L.: "The Origin of Life," in G. A. Batsell (ed.), *The Evolution of the Earth and Man* (New Haven, 1929).
- WOODWARD, S.: "Fourth Note on the Piltdown Skull" (*Quarterly Journal of the Geological Society*, Vol. 73, 1917), pp. 1-10.
- WUNDT, W.: *Völkerpsychologie* (10 vols., Leipzig, 1910-1920).
- YERKES, R. M.: *Psychological Examining in the U.S. Army* (National Academy of Sciences, Memoirs, Vol. 15, 1921).
- YOUNG, K.: *An Introductory Sociology* (rev. ed., New York, 1939).
- : *Social Psychology* (New York, 1941).
- ZUCKERMAN, S.: "Taxonomy and Human Evolution" (*Biological Review*, Vol. 25, 1950), pp. 435-478; reprinted in the *Yearbook of Physical Anthropology*, 1950 (New York, 1951), pp. 221-271.

Glossary

- a-bu'sua.** The matrilineal clan in Ashanti society.
- ac-cul'tu-ra'tion.** The process of interaction between two societies by which the culture of the society in the subordinate position is drastically modified to conform to the culture of the dominant society.
- A-cheu'le-an.** A culture of the Lower Paleolithic Age in Western Europe.
- a-do'be.** An unfired, sun-dried clay brick.
- af'fi-nal.** Related by marriage.
- age class, age grade, age set.** An organized association that includes all the members of a tribe who are of a given age and sex.
- ag-nate.** A kinsman related in the male line of descent, i.e., patrilineally.
- ag'o-ra-pho'bi-a.** An obsessive state of discomfort stimulated by large open spaces.
- a-lign'ment.** A series of standing stones (menhirs) arranged in rows.
- al-lele'.** One of a pair of genes that give rise to contrasting Mendelian characters and which have identical loci of homologous chromosomes.
- alter ego.** The soul, spirit, ghost, or other self of a person.
- al-ter'na-tive.** A behavior pattern in which two or more permissible response norms occur for a given stimulus situation.
- am'i-tate.** The complex of special behavior patterns governing relations between a child and its father's sister.
- a-mok' (to run amok).** A form of psychotic behavior prevalent among Malayan peoples. It is characterized by inattention followed by a violent outbreak, often directed toward homicidal assault.
- An'a-sa'zi.** The prehistoric and contemporary culture of the Pueblo Indians of the Southwest.
- an'dro-cen'tric.** Centered about the male.
- an'dro-crat'ic.** Ruled by males.
- angakok (ang'ga-kok).** An Eskimo shaman.
- an'i-ma-tism.** The attribution of life to inanimate objects.
- an'i-mism.** The belief in the existence of spiritual beings. (Tylor's minimum definition of religion.)

- an"thro-po-ge-og'ra-phy.** The study of the effect of geographical factors upon man and society.
- an'thro-poid.** Having the characteristics of the highest family (that of man and the tailless apes) within the primate order.
- an"thro-pom'e-try.** The division of physical anthropology concerned with the measurement of man's bodily characteristics.
- an"thro-po-mor'phism.** The attribution of human form to any object.
- an"thro-poph'a-gy.** Cannibalism.
- Ap'ol-lo'ni-an.** A configuration of culture that emphasizes restraint, moderation, and "middle-of-the-road" behavior in human conduct.
- ar'ti-fact.** Any material object that has been "worked" or has been used as a tool.
- asso"ci-a'tion.** A social group specifically organized for the pursuit of special interests.
- at'latl.** The Aztec name for a dart or spear thrower.
- Aud'i blade.** An Aurignacian flint artifact developed from the Levallois flake of the Mousterian epoch.
- Au"rig-na'ci-an.** The second culture of the Upper Old Stone Age in Europe.
- Aurignacian man.** *Homo sapiens aurignaciensis*, a variety of modern man associated with the Aurignacian culture.
- aus-tra"lo-pith'e-cine.** One of any of the varieties of fossil hominoids closely related to *Australopithecus africanus*.
- Aus-tra"lo-pith'e-cus af"ri-can'us.** A genus of fossil hominoid found at Taungs, South Africa.
- au-tis'tic think'ing.** Wishful daydreaming.
- a-void'ance.** The inhibition of social interaction, especially between affinal relatives.
- a-vun'cu-late.** The complex of special relations between a mother's brother and his sister's child.
- A-yan'thi-an.** A Lower Paleolithic culture from Burma.
- A-zil'i-an.** A culture that is transitional between the Upper Paleolithic and Neolithic Ages in Western Europe; usually associated with the Tarde-noisian.
- band.** A territorially based social group that is less inclusive than the tribe.
- Band'ker-am-ik.** Neolithic pottery decorated with incised parallel lines about the neck.
- bar'ba-rism.** A classification of cultures possessing gardening, agriculture, or domesticated herds but devoid of written language.
- bar'row.** The English term for a burial mound.
- bar'ter, dumb.** Exchange of goods between hostile people without face-to-face contact and without the use of middlemen.

Bas'ket Mak'er. A prehistoric culture (or the people who produced it) widely spread throughout the southwestern parts of the United States and antecedent to the Pueblo cultures.

bast. The fibrous inner bark of certain trees.

ber'dache (ber'dash). A person who assumes the social roles ascribed to the opposite sex; a transvestite.

bi''fur-ca'tion. Separation into two branches or sections.

blas'tu-la. A mass of cells, usually in the shape of a hollow sphere, resulting from the cleavage within an egg.

bo'lo. A weapon made of several stones, each encased in a leather pouch at the ends of a string, and with the free ends of the strings joined together.

Bondu. The women's tribal secret society among the tribes of Sierra Leone and Liberia in West Africa.

bra''chi-a'tion. Use of the hands; in a special sense, movement through the trees by swinging from the branches.

bra''chy-ce'phal'ic. Roundheaded; having a cephalic index of 80 to 84.9.

brother equivalence. The classifying of brothers within a single kinship status.

bull-roar''er. A flat board that, when whirled at the end of a string, makes a whirring noise.

carci'que. The Carib word for "chief": often used for the sacerdotal head of a Pueblo Indian tribe or any Central or South American tribe.

cal-va'ri-um. The skullcap, or upper portion of the cranium.

ca'nine fos'sa. The pair of small openings in the facial bones just below the eye sockets; the passage for the facial nerves.

caste. An endogamous social group, usually linked with a specific occupation.

Cau-ca'si-an race. The so-called "white" race.

celt. A polished stone axhead.

ce-phal'ic in'dex. A metric expression of the ratio between head breadth and head length.
$$C.I. = \frac{HB}{HL} \times 100$$

cer'vi-cal. Pertaining to the neck or cervix.

chal-ced'ony. A white, waxy "flint."

Chal'co-lith'ic Age. The Copper Age.

Chât''el-per-ron' point. A long, sharp-pointed Aurignacian blade developed from the Audi blade.

Chel'le-an. A culture of the Lower Paleolithic Age in Europe.

chert. An impure form of flint.

chief, peace. A chief whose functions are largely concerned with the direction of civil affairs.

- chief, talking.** In many societies the chief does not publicly address the people. A "speaker," or talking chief, does this for him.
- cic"a-tri-za'tion.** Scar tissue produced by making incisions in the skin: often done in patterns for ornamentation.
- cire'-per-due'.** See lost wax method.
- cist.** An individual, slab-lined grave.
- civ"i-li-za'tion.** A classification of cultures possessing gardening, agriculture, or domesticated herds, and a written language.
- Clac-to'ni-an.** A first interglacial culture found in East Anglia.
- clan.** A unilateral kinship group that maintains the fiction of common genetic descent from a remote ancestor, usually legendary or mythological.
- coc'cyx.** The hidden tail in man, formed of the last several vertebrae at the end of the spinal column.
- con"cu-bi'nage, group.** The practice according to which a group of men, as an African age class, share concubines in common.
- con-cu'bi-tant.** A male who has the status of marriageability to a person without necessarily being married to that person.
- con-di'tion-al curse.** A ritual declaration that if the facts are not as stated, or if certain conditions come to pass, ill-fortune may strike the person cursed.
- configuration of culture.** The distinctive and characteristic quality of a culture that derives from the special relationship of its parts to each other.
- con-ver'gence.** A process of cultural dynamics in which two or more cultures contain similar institutions or behavior patterns independently arrived at, i.e., without historical connection.
- cos'mic time.** All time prior to the formation of the earth.
- coup.** An attested deed of valor among the Plains Indians.
- coup counting.** The social practice of publicly reciting coups.
- coup de poing.** A flint hand ax characteristic of the Chellean, Acheulean, and Mousterian cultures.
- cou-vade'.** The practice whereby a husband retires to bed upon the birth of his offspring and acts as though he had just gone through childbirth.
- cra'ni-al ca-pac'i-ty.** The interior volume of the cranium measured in cubic centimeters.
- cra'ni-um.** That portion of the skull which encloses the brain.
- Cro-Mag'non man.** A variety of *Homo sapiens* dominant in western Europe during the last half of the fourth glaciation.
- crom'lech.** A circular arrangement of standing stones.
- cross-cousins.** Cousins whose related parents are siblings of unlike sex. Offspring of a person's mother's brother or father's sister.

- cul'tural or "tho·gen'e·sis.** The relative overdevelopment of one aspect of a culture.
- cul'ture.** The integrated sum total of learned behavior traits characteristic of the members of a society.
- culture area.** A geographical territory within which the cultures tend to be similar in some significant aspects.
- culture complex.** An integrated system of culture traits organized about some nuclear interest.
- culture construct.** A selective and descriptive formulation of the modal or normal behavior characteristic of the members of a society.
- culture, ideal.** A verbalized formulation of normative patterns for behavior as stated by the members of a given society.
- culture pattern.** A normative form of behavior laid down by the consensus of the members of a society.
- culture trait or element.** A reputedly irreducible unit of learned behavior pattern or material product thereof.
- Cyp"ro·lith'ic.** The Copper Age.
- dead'fall".** A type of trap so constructed that a weighted lever, rock, or ceiling drops on the victim when released by a trigger.
- deme.** (1) An endogamous community consisting of a single kindred. (2) A territorial political unit in Attica after the reorganization by Cleisthenes in 509 B.C.
- dib'ble.** A pointed digging stick.
- dif·fu'sion.** A process in cultural dynamics wherein culture elements or complexes spread from one society to another.
- Di'o·ny'si·an.** A categorical label attached to cultures that emphasize sensate experience.
- dol"i·cho·cephal'ic.** Long- or narrow-headed; having a cephalic index of less than 75.
- dol'men.** A structure formed of three or more slabs of rock set on edge and covered with a flat slab; hence called **table rock**.
- doub'le des·cent'.** The existence of a maternal and a paternal descent system side by side within the same culture.
- drive.** A state of neurophysiological tension that motivates an organism toward action.
- drive, acquired or secondary.** A learned drive.
- drive, basic.** A drive that is innate in the organism, the satisfaction of which is ultimately necessary to survival of the organism or the species.
- Dry"o·pith'e·cus.** A genus of Miocene fossil ape from which man and the great anthropoids evolved. (Huxley theory.)
- dys"tele·ol'o·gy.** See vestigial remains.

earth lodge. A house built wholly or partially of sod or made of a framework covered with dirt.

e-col'o-gy. The study of the relationships between organisms and their physical environments.

Eg'bo. A secret fraternity identified with the leopard in certain African tribes.

e'go. (1) In kinship analysis, the person who is used as the reference point for identification of kinship relations and terms. (2) In psychoanalysis, the individual's concept of himself.

e''go-ma'ni-ac. A person whose self-centeredness reaches psychotic proportions.

Ek'pe. *See* Egbo.

em''bry-o'l'o-gy. The study of the embryo and its stages of development.

en-cul-tu-ra'tion. The process of acquiring the cultural patterns in the personality of the individual.

en''do-cra'ni-al. The inner surface of the cranium or brain case.

en-dog'a-my. The rule that requires a person to marry within a given social group of which he is a member.

E''o-an'thro-pus daw-so'ni. Dawson's Dawn man, otherwise known as *Piltown man*: demonstrated to be fraudulent.

E'o-cene. The first period of the Cenozoic era.

e'o-lith. A Dawn Stone Age artifact; a stone implement so crudely made that its shape is more fortuitously than purposefully determined.

E''o-lith'ic Age. The Dawn Stone Age. The first age in the evolution of human culture, characterized by coliths.

ep''i-can'thic fold. An overlap of the upper eyelid.

Ep''i-pa''le-o-lith'ic. The stage of prehistoric cultural evolution between the Paleolithic and Neolithic Ages; also called the Mesolithic or transitional age.

Er''te-bolle'. A local manifestation of Early Neolithic culture in Denmark.

eth-nog'ra-phy. The division of anthropology devoted to the descriptive recording of cultures.

eth-nol'o-gy. The division of anthropology devoted to the analysis and systematic interpretation of cultural data.

ev''o-lu'tion, biological or organic. The passage from simplicity to complexity, from homogeneity to heterogeneity, which, from empirical observation of living creatures and their remains, may be deduced to have occurred and to be still occurring in the world of life.

evolution, cultural. The passage from simplicity to complexity, from homogeneity to heterogeneity, which, from empirical observation of living societies and the material remains and records of those now defunct, may be deduced to have occurred and to be still occurring in the world of social life among men.

evolution, divergent. The process of evolutionary development that results in several lines of progressive modification from an original common form.

evolution, unilinear. The evolution of social forms in a universal and ordered sequence: a theoretical process.

ex·og'a-my. The rule that requires a person to marry outside a specific social group of which he is a member.

fam'i-ly. A bilateral kinship group.

family, conjugal. A social group consisting of spouses and their offspring.

family, consanguine. *See* *susu*.

family, extended. A social group consisting of near relatives in addition to the mated pair and their offspring.

fa'ther-hood", sociological. The institution whereby the adult male who is the husband of a child's mother stands in the functional relationship of fatherhood to the child, regardless of his biological relationship.

felt'ing. A cloth-making technique in which the fibers are matted together, not spun and woven.

fe'mur. The thighbone.

fe'tish. An object that is revered because it is believed to house a supernatural power.

fib'u-la. (1) The long bone that, with the tibia (shinbone), makes up the lower part of the leg. (2) A Bronze or Iron Age safety pin.

for'a-men mag'num. The "great window." The hole in the base of the skull through which the spinal cord leaves the cranium.

fos'sil. An organic object that has been transformed into stone by a natural process of replacement.

fra-ter'ni-ty. (1) An association of men. A men's society. (2) The children of a woman. *See* *sibling*.

func'tion-al-ism. A theoretical and methodological approach to anthropology that emphasizes concern with the part each unit within a culture plays in the total existence of the culture.

Gal'ley Hill man. A neoanthropic fossil of mid-glacial age found at Galley Hill, England.

gas'tru-la. A stage in embryonic development in which the embryo consists of an outer layer of cells, enclosing a cavity and having an opening at one end.

gene. The Mendelian unit of inheritance, located on a chromosome.

gen"er-a'tion e-quiv'a-lence. The classifying of relatives of different genetic relation, but within the same generation level, within a single kinship status.

gen'o-type. An organic specimen in which both the genes that determine

- a specific trait are dominant or recessive. The somatic characteristic therefore directly reflects the gene combination.
- gens.** A patrilineal clan.
- ge''o-log'ic time.** All time since the first formation of the earth.
- ger''on-toe'ra-cy.** A society dominated by the old men.
- ger''on-to-morph'ism.** The tendency to dominance of adult male characteristics in body build.
- Gi''gan-to-pith'e-cus black'i-i.** A genus of giant fossil ape from South China.
- glot'tal stop.** A phoneme produced by closing the glottis.
- God, High.** The supreme deity in a polytheistic system.
- gra-vette'.** A small, sharp-pointed Aurignacian flint blade used for engraving and carving.
- G-string.** A string or band of material worn between the legs and fastened around the waist.
- hall'cist.** *See* passage grave.
- head'man.** A leader of a kinship or territorial unit who is not endowed with specific and determinative authority; less than a chief.
- Hei'del-berg man.** A Neandertaloid fossil man found in first interglacial deposits at Mauer, near Heidelberg, Germany.
- hi'er-o-glyph''.** A highly conventionalized symbol developed from pictorial representation and used as an element in certain archaic writing systems.
- ho'gan.** The Navaho dwelling.
- Ho'ho-kam.** A prehistoric culture localized in the desert areas of central Arizona.
- hom'i-nid.** (1) A primate who belongs to the order of Hominidae, or human beings. (2) Also, having the characteristics of a primate.
- hom'i-noid.** Like a human being, but not fully qualifying as such.
- Ho'mo sap'i-ens.** Modern man. The sole existing species of the genus *Homo*.
- id.** The Freudian term embracing all the innate unmodified biological impulses of the human being.
- id'e-o-graph''.** A drawn, carved, or painted symbol which stands directly for an object or idea, and which is nonphonetic in the language of its user.
- id''i-o-syn'cra-sy.** A form of behavior uniquely characteristic of an individual.
- in'cest.** Sexual contact between persons who are both members of the same socially defined kinship group.
- in-fan'ti-cide''.** The killing of infants.

in"sti-tu'tion, so'ci-al. A complex of behavior patterns organized about some dominant nuclear interest.

in"val'id'i-cide. The killing of invalids.

in-ven'tion, in"de-pen'dent. *See* parallelism.

jok'ing re-la'tion-ship". An institutionalized pattern of privileged familiarity or joking between persons of specific social statuses.

ka-chi'na. The gods in certain Pueblo cultures, who are represented in ceremonials by masked dancers.

Kan'am man. *Homo kanamensis*. A purported species of modern man represented by a fossilized symphysis found in Kenya Colony, East Africa.

kay-la'si. Adultery among the Trobriand Islanders.

kin'dred. A local group that is constituted of bilateral relatives.

kin'ship, classificatory. The lumping, merging, or equating of relatives of differing genetic relationship into one and the same kinship status.

kinship system. The customary complex of statuses and roles governing the behavior of relatives.

kinship terminology. The set of names applied to the various statuses in a kinship system.

kit'chen mid'den. A refuse heap.

ki'va. A semisubterranean ceremonial chamber, usually round, in the Southwest Indian pueblos.

Kra-pi'na man. A local type of Neandertal fossil man found at Krapina in Croatia in second interglacial deposits.

ku'la ring. The system of intertribal ceremonial exchange of shell arm bands and necklaces in southwestern Melanesia.

Kul-tur'kreis. A conception of large culture complexes that, in the theory of the culture historical school (*Kulturkreislehre*) of ethnology, diffuse en bloc over large areas of the globe. ✓

la'bret. A plug worn through an incision in the lip.

laurel-leaf point. A flint blade shaped like a laurel leaf and characteristic of the Solutrean culture.

law. A social norm sanctioned by the application of physical coercion, in threat or in fact, by a person or group possessing the recognized privilege-right of so doing.

law, adjective. The part of the law that governs the settling of cases and the application of legal sanctions.

law, private. Law which is normally enforced by the wronged party rather than by a public officer.

law, public. Criminal law; that which is enforced by a public officer.

law, substantive. The norms that define illegal activity.

le·ji'ma. The nonlocalized maternal clan in Umor society.

le'mur. A primitive type of primate that first emerged in the Eocene period.

lep're-chaun. The fairy cobbler of Irish folk belief, usually in the form of a little old man.

Le-val-lois'i-an. A Lower Paleolithic culture characterized by a flint flake tool with a prepared striking platform.

lev'i-rate. Brother-in-law marriage. The marriage of a woman to her deceased husband's brother.

levirate, anticipatory. The practice in which a husband extends limited sexual privileges with his wife to his younger brother.

li·bi'do. The Freudian term for the id energies.

lig-a. A pile of heated stones used for baking taro in New Ireland.

li'ne-a as'pe-ra. The longitudinal ridge on the posterior surface of the femur.

lin'e-age. A unilateral kinship group that traces descent from a known common ancestor, who lived not more than five or six generations back.

lo·bo'la. Progeny price among the Bantu-speaking tribes of South Africa.

lost wax method. A process of casting metal objects in molds shaped about a wax form, which is then melted out.

Mag'da-le'ni-an. The final culture of the Upper Paleolithic Age in Europe.

mag'ic. The control of supernatural forces by means of compulsive formulas.

magic, contagious. A form of sympathetic magic. It operates on the principle that things once in contact with each other can exert a continuing influence upon each other.

magic, imitative. A form of sympathetic magic. It operates on the principle that like influences like.

magic, sympathetic. Magic that operates on the principle of homeopathic association; i.e., that one object can exert an influence upon others that have an identity with it.

Mag'le-mo'si-an. A local manifestation of the Mesolithic Age in the Great Swamp of the Baltic Coast.

ma''ka-ra'ta. A formal regulated combat among the Murngin of Australia.

ma'la-gan. A complex of memorial festivals in New Ireland, Melanesia.

ma'na. Supernatural power that does not occur in the form of a spirit being.

- man'i-oc.** A tropical plant of the genus *Manihot*, whose roots yield a nutritious starch; also called *cassava*.
- ma'no.** See *muller*.
- mar'riage.** The social institution that regulates the special relations of a mated pair to each other, their offspring, their kinsmen, and society at large.
- marriage, affinal.** Marriage to a spouse's relative. In-law marriage.
- marriage, cross-cousin, asymmetrical.** A preferred marriage form that is restricted to one type of cross-cousin only. Marriage of a man to his mother's brother's daughter is permitted, while marriage to his father's sister's daughter is prohibited, or vice versa.
- marriage, cross-cousin, symmetrical.** Marriage in which either type of cross-cousin is permissible or preferred as a spouse.
- marriage, extended affinal.** Marriage to an affinal relative of a higher or lower generation. Marriage based upon an extension of the levirate or sororate principles.
- mas'ta-ba.** An Egyptian subterranean burial chamber that is prototypic of the pyramids.
- ma'ta-i.** The titular head of a Samoan household.
- ma'tri-arch"ate.** A society distinguished by uxorilocal residence and matrilineal descent.
- ma"tri-lin'e-al.** Of or pertaining to descent through the mother; descended through the mother.
- ma"tri-lo'cal.** See *uxorilocal*.
- mean, arithmetical.** The average. That point in the range of variability of a phenomenon at which exactly equal quantities fall on either side.
- me'di-an.** The mid-point. That point in the range of variability of a phenomenon which falls exactly at the middle of the two extremes.
- meg'a-lith.** A large stone used as a marker, altar, or monument.
- megalithic complex.** A cultural system centering about large stone monuments.
- Me-gan'thro-pus pa"le-o-ja-van'i-cus.** A giant fossil man from Java.
- Mel"a-ne'si-a.** Black islands. The island area of the Southwest Pacific.
- men'hir.** An elongated, standing stone raised as a monument or altar.
- merg'ing** (in kinship systems). See *kinship, classificatory*.
- mes"o-ce-phal'ic.** Medium-headed; having a cephalic index of 75 to 79.9.
- Mes"o-lith'ic.** The Middle Stone Age; also called *Epipaleolithic*.
- mes"o-log'i-cal.** Semi- or quasi-logical; applied to the method of reasoning used by the nineteenth-century lineal evolutionists, who by inference reasoned that beginning with assumed starting points the successive stages of each form of social institution or material invention could be described.

- me·ta'te.** A flat or grooved grinding stone that functions as a mortar.
- mi'cro·lith.** A minute stone artifact made from fine flint flakes.
- Mi''cro·ne'si-a.** Small islands. The island area of the West Central Pacific.
- mil'pa.** The Maya Indian method of gardening, involving the slash-and-burn technique of clearing garden plots in the forest.
- Mi'o·cene.** The middle, or third, period of the Cenozoic era.
- Mith·ra'ic cult.** The religious system devoted to the worship of Mithras, the Persian god of light, upholder of the truth and the foe of evil.
- mode.** The high point. That point in the range of variability of a phenomenon which occurs with the greatest frequency.
- Mo''gol·lon'-Mim'bres.** A prehistoric Pueblo culture localized in the mountainous area of southeastern Arizona and southwestern New Mexico.
- moi'e·ty.** Half. The social unit based upon kinship that occurs when the tribe is divided into two recognized units.
- mo·nog'a·my.** Marriage of one man to one woman.
- mon'o·lith.** A structure consisting of a single stone.
- mon'o·the·ism.** The worship of one god.
- mor'pheme.** A minimal unit of language that has meaning.
- mor·phol'o·gy.** The study of the form and structure of an organism or social manifestation.
- Mous·te'ri·an.** The culture associated with Neandertal man during the third interglacial and fourth glacial epochs in Europe.
- mul'ler.** A grinding stone held in the hand and rubbed over a metate.
- mu·ta'tion.** An abrupt modification of the genetic composition of an organism.
- na'sal in'dex.** The relation between the breadth and height of the nasal orifice.
$$\text{N.I.} = \frac{\text{N.B.}}{\text{N.H.}} \times 100$$
- na'si·on.** The intersection of the internasal suture with the frontal bone of the skull.
- Ne·an'der·tal man.** An extinct fossil race of man dominant in the Old World from the second interglacial epoch to the climax of the fourth glacial.
- Ne·gri'to.** The "little Negro," or Pygmy, race.
- Ne'groid.** Characteristic of Negroes.
- Ne''o·an·throp'ic man.** A "modern" or *sapiens* type of man.
- Ne''o·lith'ic.** The New Stone Age.
- neu·ro'sis.** A mild form of behavior disorder.
- Ngbe.** See Egbo.
- Ni·lot'ic.** Pertaining to or designating a people who live on the Nile River.
- no·bil'i·ty.** A class or caste with hereditary status of high prestige and ceremonial or political power.

nor'ma-tive. Relating to or inducing conformity to a norm.
no'to-chord. A rod of cells that forms the beginning of the backbone in vertebrate animals.
nto'ro. The patrilineal clan in Ashanti society.

oath. A formal declaration that the facts are as stated. (Not to be confused with conditional curse.)
oc'ci-put. The bone that forms the rear and lower segment of the cranium.
Oed'i-pus com'plex. A psychological state of a male characterized by sexual desire for the mother and antagonism toward the father.
o-ke-ya'me. The talking chief in Ashanti society.
ol'i-gar'chy. A state whose government is controlled by a small group within the larger society.
on-to-g'e-ny. The natural history of an individual, beginning with the fertilized egg.
or-deal'. A ritual method of verification of testimony in which the litigants are subjected to a physical test designed to injure the falsifier seriously or to kill him.

Pa"le-o-lith'ic. The Old Stone Age.

Pa"le-o-sim'ia. A genus of Miocene fossil ape ancestral to the orangutan.

Pa"le-o-zo'ic. The third era of geological time.

pa-py'rus. The Egyptian paper made from the pith of *Cyperus papyrus*, an Egyptian sedge.

parallel-cousin. Cousins whose related parents are of like sex. The offspring of a person's mother's sister or father's brother.

par'al-lel-ism. The development of similar cultural forms through identical steps without historical interaction or contact.

Par'a-pith'e-cus. A genus of fossil primate found in Oligocene deposits and believed to be ancestral to man, the apes, and monkeys.

par'fleche. An oblong rawhide box made by Plains Indians.

pas'sage grave. A long narrow burial chamber.

pas'to-ral-ism. A culture marked by a subsistence technique centered about the herding and husbandry of domesticated animals.

pa"ter-fa-mil'i-as. The authoritarian father in the Roman family.

pa-to'lli. The Aztec form of pachisi, a game played with dice.

pa'tri-arch"ate. A society dominated by the father as head of the kinship group, characterized by patrilineal descent and virilocal residence.

pat"ri-lin'e-al. Pertaining to descent through the father. Children belong to the kinship group of their father.

pat"ri-lo'cal. See virilocal.

pa-tron'y-my. The custom of giving children the name of their father's kinship group.

per-cus'sion flak'ing. The technique of shaping flint artifacts by removing flakes with blows of a hammerstone.

Pé-rigord'i-an. The basic culture of the Upper Old Stone Age in Europe.

per"son-al'i-ty. The sum total of behavior traits, overt and covert, characteristic of a person.

personality, basic structure. The constellation of behavior traits and attitudes established in the members of a given society by their childhood reactions to the methods of child training characteristic of their culture.

personality, ideal type. The construct of the personality configuration most highly emphasized in a culture.

personality, modal. The personality configuration most commonly manifested by the members of a society or group.

pet'ro-glyph. A symbol incised in rock.

pe'yo'te. A variety of cactus (*Lophophora williamsii*) ingested by Indians (notably Plains Indians) as a means of stimulating visions as a form of religious experience.

phe'no-type. An organic specimen in which one of the paired genes determining a trait is dominant and the other recessive. The presence of the recessive trait is not directly revealed in the somatic manifestation of the trait.

pho'neme. The smallest sound unit used in a language.

phra'try. A social unit consisting of two or more linked clans between which exists a special bond of unity as against clans joined in other phratries within the society.

phy-log'e-ny. The natural history of a species or variety.

physical anthropology. The study of the bodily characteristics of mankind.

pic'to-graph". A simple picture, or series of pictures, intended to describe a situation or record some event.

pile dwelling. A house raised from the ground or built over water on piling.

pit dwelling. An earth lodge built over an excavated pit.

Pith"e-can'thro-pus e-rec'tus. Upright ape man. An early Pleistocene type of man, whose fossil remains were discovered at Trinil, Java (Java man).

Pithecanthropus ro-bus'tus. A large-sized variety of the genus *Pithecanthropus*, also found in Java.

plan"e-tes'i-mals. Fragmentary solar materials from which the planets are hypothetically believed to have been formed.

Pleis'to-cene. The fifth period of the Cenozoic era. The glacial age during which man rose to dominance among life forms.

Ple"si-an'thro-pus. A genus of fossil ape recently discovered in South Africa.

Pli'o·cene. The fourth period of the Cenozoic era; a warm period during which early human types became differentiated from apes.

Pli'o·pith'e·cus. A genus of Pliocene fossil ape that is directly ancestral to the gibbon.

pol'y·an'dry. The marriage of a woman to two or more men simultaneously.

polyandry, attenuated. The marriage relationship in which a married brother extends limited sexual privileges in his wife to his unmarried younger brothers. Also called *anticipatory levirate*.

polyandry, fraternal. A polyandrous marriage in which the husbands are brothers.

po·lyg'a·my. Any multiple marriage.

pol'y·gen'e·sis. The evolutionary hypothesis which assumes that the several genera of prehistoric man have evolved from different species of Pliocene apes.

po·lyg'y·ny. The marriage of a man to two or more women simultaneously.

Pol'y·ne'si·a. Many islands. The area of the Central Pacific that falls within a triangle formed with Hawaii, Easter Island, and New Zealand as the apices.

pol'y·the·ism. Many gods. A system of religion recognizing multiple gods.

Por'ro. The men's secret fraternity in Sierra Leone and Liberia, West Africa.

pot'latch. The Northwest Coast Indian institution of ceremonial feasting accompanied by lavish distribution of gifts.

pref'er·en'ti·al marriage. A form of marriage that is enjoined or preferred between two persons of specifically defined statuses.

pres'sure flak'ing. The technique of shaping flint artifacts by removing fine flakes by means of steady pressure applied with a hard stick or bone.

priest. A religious functionary whose supernatural authority is bestowed upon him by a cult or organized church, in contrast to the shaman, who derives his power directly from supernatural sources.

pri'mate. An order within the mammalian class.

prim'i·tive. Pertaining to a culture, or an aspect of a culture, or an individual whose culture is not characterized by the inclusion of a written language; therefore, nonliterate or preliterate.

pri'mo·gen'i·ture. Inheritance by the first-born son or child.

priv'i·leged fam'il'i·ar'i·ty. A culturally permissive relation of free joking between individuals of certain statuses.

prog'e·ny price. The wealth transferred by the kin of a groom to the kin of his bride in compensation for their release of claim to the children that are produced in the marriage; also known as *bride price* and *bride wealth*.

prog'na'thous. Having a projecting jaw.

prom"i-s-cu'i-ty. The absence of any social restraints limiting or regulating sexual behavior.

prop'er-ty. The special and socially sanctioned relation of a person or group to the utilization of some object.

property, communal. Property that is owned by the entire community.

property, incorporeal. Property that involves a nonmaterial object.

property, joint. Property that is owned by a group smaller than the entire community.

Pro"pli-o-pith'e-cus. A genus of fossil ape found in Oligocene deposits of Egypt. It is a prototype of the gibbon.

Prot'er-o-zo'ic. The second era of geological time.

psy-cho'sis. An extreme form of behavior disorder marked by relatively fixed patterns of maladaptive attitudes and responses.

pueb'lo. A village constructed of clay bricks (adobe) or stones, characteristic of the Indians of southwestern United States and northern Mexico.

Pyg'my. *See* Negrito.

py'rite. A mineral, such as flint, used for striking fire.

quern. A grinding stone.

race. A major group of interrelated people with distinctive physical characteristics that are the result of a genetic composition differing from that of all other such groups.

rac'ism. A doctrine that assumes the inherent superiority of one or another race over others.

rel'a-tives, affinal. Persons related through marriage.

relatives, genetic. Biologically related persons.

re-li'gion. A belief in supernatural beings and the attendant ways of behaving in consequence of such beliefs.

Rho-de'si'an man. A fossil human type with remarkably heavy supra-orbital ridges, found at Broken Hill in Rhodesia, South Africa.

rite de passage. *See* transition rites.

rite, fertility. A ritual complex designed to promote genetic reproduction.

role. The customary complex of behavior associated with a particular status.

ros'tro-car'i-nate. A Pliocene artifact found in East Anglia; so called because it is "beak-keeled" in shape.

sac'er-do'tal. Of a priestly nature.

sa'crum. The wedge-shaped bone formed by the joining of the vertebrae that form the posterior segment of the pelvis.

- sanc'tion.** Any social reaction operating to induce conformity to a normative standard of behavior.
- sanction, legal.** A coercive penalty involving the use of physical force in threat or in fact, attached to the violation of a social norm, when the application of the sanction is considered legitimate according to the prevailing standards of the culture.
- sa-rong'.** A loose girdlelike skirt originally made of bark cloth and worn by Polynesian women.
- sav'age-ry.** A state of cultural development marked by the absence of gardening or agriculture and written language.
- scar''i-fi-ca'tion.** The process of mutilation of the body through the artificial raising of scar tissue. *See* cicatrization.
- schiz''o-phre'ni-a.** A behavior disorder marked by a replacement of the learned behavior systems with desocialized behavior dominated by private fantasy.
- Schnur''ke-ra'mik.** Neolithic pottery decorated with imprints of cord.
- se-nil'i'cide.** The killing of the aged.
- sha'man.** A religious specialist who has received his power directly from supernatural sources; synonymous with *medicine man*, *witch doctor*, *angakok* (Eskimo).
- sib.** A unilateral kinship group; synonymous with *clan*.
- sib'ling.** Brother or sister; a member of a sib or clan.
- si'lent trade.** *See* barter, dumb.
- sim'i-an.** Apelike.
- Si''nan'thro-pus pe''ki-nen'sis.** Pekin man. An Early Pleistocene fossil race found at Chou Kou Tien, China, related to Java, Heidelberg, and Neandertal men.
- Skhul man.** A highly variable type of fossil man found in Palestine. It reveals both Neandertaloid and *Homo sapiens* characteristics.
- slav'ery.** The institution whereby persons are subjected to involuntary servitude, are denied the right of freedom of movement or action, and must place their productive efforts at the disposal of the master.
- so'ci-al dis'tance.** A term covering the relative "spatial positions" of two statuses; generally used to emphasize limitations on social intercourse.
- so'ci'e'ty.** An aggregation of human beings (a population) living as a distinct entity and possessing a distinct culture.
- society, military.** An association of warriors.
- society, secret.** A fraternity or association whose membership and activities are shrouded in secrecy. A tribal secret society embraces all adult males in its membership.
- So'lo man.** *Homo soloensis*. A fossil species of a Neandertaloid type found on the Solo River in Java.

So·lu'tre·an. The middle culture of the Upper Paleolithic Age in Western Europe.

so'r·cer·y. The use of supernatural power as an aggressive instrument to further the interests of the sorcerer. *Magic* is a more neutral term.

so-ro'al polygyny. The simultaneous marriage of two or more sisters to one husband.

so'ror·ate. The practice whereby a younger sister marries the widowed husband of her deceased elder sister.

sou·la'va. The red shell necklaces exchanged in the Melanesian kula.

state. The association within a society that undertakes to direct and organize social policy on behalf of and in the name of the entire society.

sta'tus. The social position of an individual with reference to the other members of his society.

Stein'heim man. A type of fossil man (*Homo sapiens*) found in mid-glacial deposits at Steinheim, Germany.

stim'u-lus dif·fu'sion. The process of cultural dynamics in which one people receive the idea of a cultural invention from another but give a new and unique form to the idea.

Stone Age. See Eolithic; Paleolithic; Neolithic.

stra-tig'ra-phy. Analysis of geological deposits in terms of discernible layers. Derivative time sequences are inferred from the relative positions of the strata or layers.

sub'in-ci'sion. A surgical operation in which the urethra of the male sex organ is slit open; a mutilation performed as a part of the male puberty rites in certain Australian tribes.

suit'or serv'ice. A substitute for, or equivalent of, progeny price, in which the potential groom works for his intended bride's kin.

su''per-or-gan'ic. Pertaining to the phenomena, known as *cultural*, that occur on a level over and above the organic; i.e., they are not preset in the organic structure.

su''pra-or'bit-al ridge. A bone ridge above the orbits, or eye sockets.

sur-vi'val. A culture element or complex the genetic function of which has altered with the passage of time so that the usage has become mere formal convention.

su'su. The kinship group formed of a woman, her children, and her brothers.

su·va·so'va. Breach of exogamy among the Trobriand Islanders.

Swans'combe man. A fossil hominid found in early interglacial deposits in southern England.

sym'phy-sis. The point at which two bones grow together.

syn'cre-tism. The fusion of two distinct systems of belief and practice.

ta·bu'. An act that is forbidden and punishable by supernatural sanctions.

ta'pa. Polynesian bark cloth.

tar'a-vad. The joint family household consisting of the members of a matrilineage among the Nyar caste of the Cochin State of the Malabar Coast of India.

Tar"de-nois'i-an. A prehistoric culture of France representing the Mesolithic Age and characterized by microlithic flints.

ta'ro. A staple food plant of the Pacific area.

Taungs ape man. See *Australopithecus africanus*.

tek-non'y-my. The practice of addressing an adult after the name of its child.

tel'e-o-lith". A purposefully shaped artifact.

than"a-to-ma'ni-a. The depression of the will to exist to the point of death.

thau'ma-tur"gy. Magic.

the-oc'ra-cy. A social order controlled by religious specialists.

till. A glacial deposit of unstratified rock and earth.

ti'pi. A conical skin tent.

tort. An offense that is legally punishable by the wronged individual or as a consequence of legal action instituted by the wronged individual.

to'tem. An object, often an animal or plant, held in special regard by an individual or social group.

to'tem-ism. The institutional complex centering about a totem.

to-vo-dun'. The deified ancestors in Dahomean religion.

tran-si'tion rites. Ritual complexes associated with important changes in personal status, such as birth, adolescence, marriage, death.

trans-ves'tite. An individual who effects a transfer of sex roles, such as occurs when a male takes on the status and roles of a female or vice versa.

trau'ma. A bodily or psychologic injury, or its effect.

trav'er-tine. A porous limestone; also called *tufa*.

travois'. A carrying device of two poles hitched to a draft animal like the tongues of a buggy. The free ends of the travois drag along the ground.

tribe. A social group speaking a distinctive language or dialect and possessing a distinctive culture that marks it off from other tribes. It is not necessarily organized politically.

Trick'ster. A character in mythology who alters the order of things by tricking men or animals into choices or circumstances that they do not expect or desire.

Tri'nil man. See *Pithecantropus erectus*.

troll. A supernatural giant or dwarf in old Scandinavian belief.

tu'mu-lus. A mound of earth covering a dolmen or burial chamber.

ul"ti-mo-gen'i-ture. Inheritance by the youngest son or daughter.

u"ni-lat'er-al. Pertaining to descent through one parent only.

u"ni-lo'cal. Relating to or designating the practice whereby a married couple regularly settles with, or close to, the parents of one of the spouses. *See* uxorilocal; virilocal.

universal. A behavior pattern characteristic of all the members of a society.

u'su-fruct. The right to use of an object of property without possessing title of ownership.

ux-or"i-lo'cal. Pertaining to the practice whereby a married couple settles in the domicile of the wife's family; synonymous with *matrilocal residence*.

varve. A band of clay deposited annually in a glacial outwash.

ves-tig'i-al re-mains'. Organs whose physiological functions have been lost (as far as can be determined).

vir"i-lo'cal. Pertaining to the practice whereby a married couple settles in the domicile of the husband's family; synonymous with *patrilocal residence*.

vo-dun'. A system of religious belief and practice developed by Caribbean Negroes and combining elements of Catholicism and African, particularly Dahomean, religions. Magic is only a minor element in the entire complex. It is called *voodoo* in the American vernacular.

wam'pum. Elongated beads drilled out of clamshells, used by Indians of the Northeast Woodlands.

warp. The parallel-lying foundation threads of a fabric.

weft. The threads woven at right angles through the parallel-lying foundation threads, or warp; also called the *woof*, or *filler*.

Wei'mar man. A local Neandertaloid type of fossil man found near Weimar, Germany.

wer'gild. The money payment made by the kin of a murderer to the kin of a murdered man.

wick'i-up". A beehive-shaped grass hut.

wife lending. The custom whereby a husband extends to a household guest the sexual favors of his wife as a symbolic gesture of brotherhood.

wig'wam. A domed bark hut of the Algonquian Indians of the Northeast Woodlands.

willow-leaf point. A long, slender flint blade characteristic of the Solutrean culture.

win'di-go. A type of culturally induced insanity among the Ojibwa and other Algonquian Indians.

woof. *See* *weft*.

wrong, private. An offense against an individual that is customarily pun-

ished by legal action instituted by the injured person or his kinsmen.

Private wrongs make up the body of private law.

wrong, public. An offense against the social entity punished by the legal action of the group at large or by its official representatives.

wur'ley. A lean-to shelter built by Australian aborigines.

ye·pun'. The virilocal, patrilineal clan in Umor society.

yuc'ca. A plant belonging to the lily family and possessing long fibrous leaves. The sap of its roots produces suds in water.

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